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DEPARTMENT OF AGRICULTURE.

Mr. Holloway, from the Committee on Agriculture, made the following report, to the House of Representatives, Aug. 5, 1856:

The majority of the Committee on Agriculture, regarding the interests committed to their consideration of primary importance, beg leave to submit a bill to establish an economical department of the government, which shall be devoted to the promotion and encouragement of the great agricultural interests of the country.

Agriculture is the *basis* of our national prosperity. It is the *substratum* of all other interests; and the degree of advancement which marks the progress of our country and its people in wealth, enterprise, education, and substantial independence, is measured by the prosperity of its rural interests. It is one of those arts which, from the earliest periods, have been deservedly held in the highest estimation. One of the first injunctions upon our original progenitor, after his expulsion from the garden of Eden, was that he should "till the soil." The great necessity which, in the eye of Infinite Wisdom, made this command imperative from the first, has ever since existed; and the experience of all the world, in all periods of its history, has fully demonstrated that the cultivation of the soil is of primary importance in securing prosperity, and hence should receive the first and most liberal patronage of the government. It furnishes the material upon which the manufacturer exerts his skill. It furnishes commerce with its business, and is intimately connected with the moral, social and political interests of the people. In our country, above all others, should this great interest be promoted.

Your Committee, however, cannot ask that so important a change be made in the economy of our government, upon this subject, without calling your attention to the opinions and recommendations of those who have higher claims upon your confidence, and particularly one whose wisdom and political experience commands the admiration of the civilized world. Gen. Washington, in his last annual message to Congress, and after seven years' devotion, as President, to the consideration of the best means to develope the resources of the country, declared:

"It will not be doubted that, with reference either to individual or national welfare, AGRICULTURE is of PRIMARY importance. In proportion as nations advance in population and other circumstances of maturity, this truth becomes more apparent, and renders the cultivation of the soil more and more an object of public patronage. Institutions for promoting it grow up, supported by the public press; and to what object can it be dedicated with greater propriety? Among the means which have been employed to this end, none have been attended with greater success than the establishment of boards, composed of proper characters, charged with collecting and diffusing information, and enabled by premiums and small pecuniary aids, to encourage and assist a spirit of discovery and improvement, by stimulating to enterprise and experiment, and by drawing to a common centre the results, everywhere, of individual skill and observation, and spreading them thence over the whole nation. Experience accordingly has shown that they were very cheap instruments of immense national benefits."

The same distinguished statesman, writing to a friend, expresses the following sentiment:

"Your young military men, who want to reap the harvest of laurels, don't care how many seeds of war are sown; but, for the sake of humanity, it is devoutly to be wished that the manly employment of agriculture, and the humanizing benefits of commerce, should supersede the *waste of war* and the rage of conquest; that the sword might be turned to plough shares and spears into pruning hooks, and as the Scripture expresses it, the nations learn war no more."

Judge Peters declares, that it was in contemplation by Washington to bring to the consideration of Congress "*his great plan* of engrafting the subject of agriculture into a national system of education, and placing the cultivators of the soil, and their instruction and incitements to improvement in their art, under *national patronage*. He was anxiously solicitous in this patriotic endeavor. It was not imputable to him that it failed. Had he been fortunate enough to accomplish it, no action of his life would have deserved more celebrity and public gratitude."

Again, in a letter to Sir John Sinclair, General Washington says:

"I know of no pursuit in which more real and important services can be rendered to any country than by improving its agriculture, its breed of useful animals, and other branches of a husbandman's cares; nor can I conceive any plan more conducive to this end than the one you have introduced for bringing to view the actual state of them in all parts of the kingdom, by which good and bad habits are exhibited in a manner too plain to be misconstrued. * * * * * It will be some time, I fear, before an agricultural society, with congressional aid, will be established in this country. We must walk, as others have done before, before we can run. Small societies must prepare the way for greater; but, with the lights before us, I hope we shall not be so long in maturation as older nations have been. * * * * From the first intimation you were pleased to give me of this institution, I conceived the most favorable ideas of its utility; and the more I have seen and reflected on the plan since, the more I am convinced of its importance, in a national point of view, not only to our own country, but to all others which are not too much attached to its old and bad habits to forsake them, and to new

countries that are just beginning to form systems for the improvement of their husbandry."

On the 7th of December, 1796, General Washington called the attention of Congress to the subject of Agriculture, as we have quoted, and subsequently writing to a friend, he says:

"I am sorry to add, that nothing *final* in Congress has been decided respecting the institution of a National Board of Agriculture, recommended by me at the opening of the session. * * * I think it highly probable that *next* session will bring this matter to maturity."

Thus spoke the Father of his Country—the farmer President of this republic. And although he lived to see another session of Congress pass without anything being done with his favorite project, yet all must believe that had he lived, our people would long since have been blessed with the advantages of a National Board of Agriculture, similar in its objects and purposes, if not in detail, with the one now proposed. We might extend our quotations from Washington's private correspondence upon this subject to the extent of a volume, but we deem the above sufficient to show his great devotion to the subject.

We might also extend this report with quotations from the messages of Jefferson, Madison, Monroe, and Adams, but will forbear. We must, however, be indulged in giving the following extract from the first annual message of General Jackson:

"The agricultural interest of our country is so essentially connected with every other, and *so superior in importance to them all*, that it is scarcely necessary to invite to it your particular attention. It is principally as mannfactures and commerce tend to increase the value of agricultural productions, and to extend their application to the wants and comforts of society, that THEY deserve the fostering care of government."

Thus emphatically declaring agriculture to be of paramount importance, and that manufactures and commerce have but little claim upon the government, save and except as handmaids of agriculture.

President Polk called the attention of Congress to the subject in his fourth annual message.

President Taylor, in his annual message, after most earnestly recommending the establishment of an agricultural bureau, says:

"To elevate the social condition of the agriculturist, to increase his prosperity, and to extend his means of usefulness to his country, by multiplying his sources of information, should be the study of every statesman, and a primary object with every legislator."

President Fillmore, in his message of 1850, made this recommendation:

"More than three-fourths of our population are engaged in the cultivation of the soil. The commercial, manufacturing, and navigating interests are all, to a great extent, dependent upon agriculture. It is, therefore, *the most important interest of the nation*, and has a just claim to the fostering care and protection of the government, so far as they can be extended consistently with the provisions of the constitution. As this cannot be done by the ordinary modes of legislation, I respectfully recommend the establishment of an agricultural bureau, to be charged with the duty of giving to this leading branch of American industry the encouragement it so well deserves."

President Fillmore, at the next session, again adverted to this project:

"Agriculture may justly be regarded as the great interest of our people. Four-fifths of our active population are employed in the cultivation of the soil, and the expansion of our settlements over new territory is daily adding to the number of those engaged in that vocation. Justice and sound policy, therefore, alike require that the government should use all the means authorized by the constitution to promote the interests and welfare of that important class of our fellow-citizens. And yet it is a singular fact that, whilst the manufacturing and commercial interests have engaged the attention of Congress during a large portion of every session, and our statutes abound in provisions for their protection and encouragement, little has yet been done directly for the advancement of agriculture. It is time that this reproach to our legislation should be removed; and I sincerely hope that the present Congress will not close their labors without adopting efficient means to supply the omissions of those who have preceded them. An agricultural bureau, charged with the duty of collecting and disseminating correct information as to the best modes of cultivation, and of the most effectual means of preserving and restoring the fertility of the soil, and of procuring and distributing seeds and plants, and other vegetable productions, with instructions in regard to the soil, climate and treatment best adapted to their growth, could not fail to be, in the language of Washington, in his last annual message to Congress, a "very cheap instrument of immense national benefit."

We might incorporate here the strong and earnest recommendations of several of the heads of departments in favor of decided legislative action upon the subject of agriculture; but we have shown conclusively that General Washington, and almost every successor in the presidential chair, in obedience to the duty imposed upon them by the Constitution, to recommend from time to time to Congress such measures as they may deem calculated to promote the public welfare, have regarded the promotion of agriculture as one of the objects which would promote the public good, and add to our national prosperity Our executive officers have, perhaps done their duty; Congress has utterly failed in its obligations to the people. While the constitutional advisers of Congress have advised, and recommended action, to which Congress has turned a listless ear, the people—the *sovereign people*—are now demanding that this great interest shall receive the attention and patronage of government. For the last four years, petition after petition has been received from the people; agricultural societies in the counties, State boards of agriculture, the United States agricultural society, and State legislatures, have passed resolutions recommending the establishment of an agricultural department. No measure has heretofore been so earnestly and so generally recommended to Congress by those whose *duty* it is, and those whose *sovereign right* it is, to call the attention of Congress to measures of public importance. Will Congress longer disobey the injunctions of the one and the demands of the other? No matter how slight an appreciation or low an estimate members may place upon this proposition; it is their duty, under the letter and spirit of our democratic insti-

tutions, to take hold of the matter, and do now what they have so long neglected.

Let us for a few minutes look into the extent and importance of the agricultural interests of this country. By the census of 1850 it will be seen that the cash value of farms and agricultural machinery is put down at three thousand five hundred millions of dollars. In our opinion this falls far below their actual value, and it may now be safely estimated at five thousand millions of dollars, and their annual product at two thousand millions of dollars. The agriculturists of the United States have more than double the amount of capital invested in the single and simple item of fences than there is invested in every department of manufacturing combined. Four-fifths of our people are engaged in rural pursuits, and by their labor are feeding and clothing over 27,000,000 of people. They produce 100,000,000 bushels of potatoes, 300,000,000 bushels of oats, 150,000,000 bushels of wheat, 800,000,000 bushels of corn, 1,600,000,000 pounds of cotton, 190,000,000 pounds of tobacco, and the less important vegetables in untold quantities. This presents a glorious picture of national prosperity. It inspires the heart of every American with pride; and too many say it is doing well; let it alone. True, it has done well, but it can do much better. Every acre, speaking comparatively, can, under proper cultivation, be made to produce double the quantity it now does. The broad fields which have been opened in the west, have contributed much to the great aggregate we have presented. Their lands are still fertile, but under the present system of farming in too many instances the spoiler is working his way unmolested. Nothing but bringing within the means of every tiller of the soil a knowledge of the means to preserve the fertility of his lands can save them from failing, as have the lands in the older States.

By statistics collected and published by the Commissioner of Patents, we find that in the great State of New York, while the number of acres of land in cultivation has vastly increased, the agricultural product has decreased. It may seem strange, but figures are given with as much accuracy as is generally found, which do not profess to be positively accurate. By them, then, in New York, in 1845 there were 505,155 horses in that State, and in 1850 but 447,014, being a decrease of 58,141; the decrease in the number of cows for the same period was 98,066; of other cattle 127,526; of swine 566,092; of sheep, 2,990,624; and but a slight increase in the great staples of grain and other agricultural products. In speaking of Virginia, Professor Leibig says: "Harvests of wheat and tobacco were obtained for a century from one and the same field, without the aid of manure; but now whole districts are converted into pasture-land, which, without manure, produces neither wheat nor tobacco. From every acre of this land there were removed, in the space of one hundred years, twelve hundred pounds of alkalies, in leaves, grain, and straw."

This same system of farming, which has extracted from the original fertility of Virginia, has done its fatal work in the New England States. The soil in these States is now utterly incapable of producing wheat as a remunerative crop. In 1850, by the census report, the State of Connecticut produced but 41,672 bushels of wheat, while in 1840 it produced 87,000 bushels. Massachusetts but 31,211; in 1840, 157,923 bushels. And the whole State of Rhode Island, once famed for her fertility of soil, produced but 3,098; in 1840, 26,409. The same state of facts exist in many parts of New York. In speaking of this vast depletion of the soil, it is declared, in an official report made to Congress, that "one thousand million of dollars would not more than restore to their original fertility the one hundred million of acres of lands in the United States which have been already subjected to this exhausting and depleting process."

The cause of this great deterioration of the soil must be apparent to every reflecting mind. It is simply the continued extracting from the soil those indispensable elements which enter into and constitute vegetable production—taking therefrom, and not returning anything thereto. It is conceded that this is not universal. The lights of science and intelligent observation have enabled many farmers to even improve the fertility of their soils; and if this knowledge were universal, such would be the result, with but few exceptions. The object of the bill herewith submitted, is to place before the people a knowledge of the positive means by which this desirable result may be attained, and to explore still further the wilderness of ignorance which is believed to exist in agricultural science.

Will any one say that we have not the constitutional right to appropriate the funds of the common treasury for such an object? We trust none will raise such a question; but, if any one does possess such scruples, we beg leave to refer him to the constitution itself, and to the action of Congress under it. The constitution declares that "Congress shall have power to * * * provide for the *common defence and general welfare* of the United States." Congress must judge as to the means proposed to secure the "common defence"—whether by erecting fortifications, building vessels to constitute a navy, the creation and maintaining of military and navy schools, establishment of armories, or investigations of fire-arms and munitions of war. No one has doubted the power of Congress to do all these things. It has been done, and will be done so long as our government shall exist. The same discretion, as to what will promote the "*general welfare*" of the country, is confined to Congress. All must concede that the general welfare can in no way be better advanced or promoted, than by such means as shall secure the largest amount of wealth from its original source, the cultivation of the soil; than by inciting to habits of industry and economy, by securing intelligence, and promoting moral and political virtue among all classes of people, upon whom rests the maintenance and perpetuity of our free institutions. These are intimately connected with the prosperity of the agricultural population of our country. Everything which legitimately brings wealth to them, brings treasures to the whole people. Whilst rural economy flourishes, our country prospers; when it withers, our country will die. Every man who makes "two blades of grass to grow where but one grew before," adds to the wealth of the country. Any discovery which shall enable the farmer to double the product of his crop, with the same or less labor than he now exerts, will add to the "general welfare." That this has been done in some instances will not be doubted; that it can be done in almost every

instance, will be demonstrated under the investigations proposed in the accompanying bill. Congress has taken advantage of almost every proposition submitted to its consideration for the *common defence* of the country. Of this, it is not our purpose to complain; but conceive there is a just cause of complaint in its neglect of what we deem best calculated to promote the "general welfare of the United States."

Some, perhaps, may object to the passage of the proposed bill on account of its increasing the expenditures and multiplying the officers of government. The reply to this is, that so far as the agricultural interests is concerned, this ought to have been done long ago; in other words, let the expense be what it may, within the ability of the government, it should not be urged against a measure from the advantages of which the anticipated benefits are so great that they cannot be computed. Assuming the position declared to be true by Gen. Jackson, that "the agricultural interest of our country is essentially connected with every other, and *superior in importance to them all*," your committee deem it by no means improper to refer to the small amount which has been expended directly for its benefit in comparison with other interests of far less importance. Since the organization of the government there had not been expended directly for the benefit of agriculture by the government, $200,000. For the benefit of the War Department, a military school was established and has been maintained at an expense of more than $5,000,000. For the Navy Department a school has also been established and conducted at an expense of millions. An expedition was fitted out for the purpose of exploring the Dead Sea, at an expense of five times the amount which has been expended for promoting agriculture. Far more money has been expended in *ornamenting* and keeping up the twenty acres of grounds around the Capitol than has been devoted to fostering that great interest which is "superior in importance to all others."

A larger sum has been expended in statuary to adorn the public buildings and grounds; more has been expended in the simple item of pictures; more has been expended in carpets to cover the floors of the public offices, than has been contributed to advance that great interest which President Polk said should be "the object of every statesman." We might refer to many other expenditures of a similar character, but let these suffice. Nor would your committee be understood as complaining of those above noticed. Their simple object is to suggest comparisons.

It may be said that agriculture having done so long, and succeeded so well, without the aid of government, it can continue to do so. True; in view of the disregard with which Congress has treated this great interest, the people in self-reliance have been compelled to exert themselves for the promotion of theirs and their country's prosperity. To this end, societies have been established in almost every part of the Union, demonstrating in every instance the greater good which could be done through a systematic and liberal effort on the part of the government, and such an one as your committee respectfully recommend. The effort on the part of the people has been constrained by the want of sufficient means—it has been too partial and limited. It has been without concert and co-operation. It has lacked a head, to which results could be reported, comparisons made, and correct conclusions drawn. It cannot be expected that private enterprise will ever be able to conduct any system of investigations which shall fully and successfully develop the great science of rural economy. Investigators and experimenters must be paid for their time and labor. The mechanic is protected in the inventions of his genius; but the experiments and results of investigations made by the farmer are common property. State boards of agriculture and State agricultural societies have been established, and in most instances have received in mere pittances, aid from their respective State governments. A national agricultural society has been organized by the enterprise of a few individuals; but it is not, as its name would imply, the object of government patronage. To sustain its exhibitions, a tax of from ten to twenty thousand dollars has to be assessed upon the liberality of the people of the cities where it is proposed to hold its annual fairs. These associations have been vastly beneficial to the people and the country, and are indispensable to future operations. They will prove valuable auxiliaries under a department. But the opinion seems to prevail to some extent, that nothing but bone and muscle are needed by the farmer, and thus he is left to grope his way in the dark, excepting such aid as he receives through the various periodicals and societies devoted to his interest. Of the patronage extended to other industrial pursuits the agricultural interest has not complained; but it now *demands* some share in the disbursements of a revenue towards which it contributes by far the largest portion.

To the inquiry, what good is anticipated from the creation of this department, we reply, all that good which has resulted to every other industrial pursuit towards which the energies of mankind have been directed under the stimulus of honor and reward. The establishment of a national observatory was once flouted at as a ridiculous and wasteful outlay of money; but who is there that will not admit that, under the charge of Lieutenant Maury, this institution has shed honor upon the country, as well as conferred substantial benefit to the commercial interests of the whole world? If, under the judicious administration of the proposed department, investigations should result in securing a prevention of the potato rot, or a discovery of the habits of such insects as prey upon the cotton, tobacco, or wheat crops, so as to secure these staples from destruction, the expense attending these investigations alone will be but as a drop in the bucket in comparison with the resulting benefits.

With these suggestions, we beg leave to submit a brief exposition of the provisions of the bill accompanying this report.

The first section provides for the appointment by the President, with the advice and consent of the Senate, of a Secretary, who shall hold his office by the same tenure as the Secretaries of the Executive departments, and receive as a salary five thousand dollars per annum. The object in not making a full Secretary, and a member of the Cabinet, is to avoid, as far as possible, political partisanship. If a member of the Cabinet, the Secretary would necessarily be a politician, and much of his time would be devoted to the investigation of political questions, in which his department could have but little interest. As it is designed to make this strictly an economical, prac-

tical, and scientific department, it is to be hoped, whatever may be the changes of party, that this department, like the Supreme Court, will remain undisturbed, so long as it is well administered.

The second section defines the duties of the Secretary to be, to collect agricultural statistics, pursue investigations for promoting agricultural and rural economy, procure and distribute seeds, cuttings, and bulbs, under such rules and regulations as he shall prescribe.

The third section provides for the appointment of a chief clerk, and four men of sufficient scientific and practical qualifications to prosecute such investigations in agricultural science and rural economy as he may direct, at a salary of two thousand dollars per annum. Also four clerks at one thousand five hundred dollars per annum, and four operators, at not more than three dollars per day when actually employed.

Section four provides for the appointment in each State of the Union of one corresponding agent, whose duty it shall be to collect such agricultural statistics, information in regard to the amount of land in cultivation, the extent and state of the respective crops, and such other statistics as said Secretaay may direct, and under such rules as said Secretary may prescribe; and shall receive such compensation as the Secretary may deem proper, no one to receive more than five hundred dollars per annum. The object and utility of this section must be apparent to all. The farmers of this country have too long been dependent upon the commercial press of the country for their knowledge of the extent of the crops, and the effect to be produced by a failure or abundant production.—Without being disposed to impugn the motives or denounce the conduct of the press, experience convinces us that operators and speculators in agricultural products have too frequently subsidized the press to advance their personal interests at the expense of the producer. By correct statements of the extent and probable product of the crops in each State—the number of cattle, hogs, sheep, horses, &c., &c.—all of which is easily and cheaply obtained through the officers of each State, and these statements published from month to month, the producer will be enabled to form a correct estimate as to the value of each, without being mystified by the statements and counter statements of interested parties or purchasers. This section provides for the appointment of correspondent agents in the different governments of the world with whom we have commercial relations by treaty, whose duties shall be similar to those of the agents in the States, and at like compensation. It is presumed the Secretary will select for these agents, whenever qualified, American consuls, and in the States the Secretaries of the State Boards of Agriculture, where such are or may be established. With agents in the States and the different governments of the world, our producers will have all the advantages of information that speculators can have.

The fifth section provides for an official seal of the department, and the testation of records, &c.

Section six provides for the taking oaths of office and the giving of bonds for the faithful discharge of the duties and safe disbursements of the funds.

Seventh section provides for a libraay of works upon the subject of agriculture.

Eighth section provides for the collection and exhibition of specimens of seeds, fruits, casts, insects, and other animals of interest to the farmer.

Ninth section requires a transfer by the Secretary of the Interior to the Secretary of Agriculture, of the books, papers, and all other articles now connected with his department.

Section ten provides for the publication of monthly reports through the public press, or otherwise, of the facts elicited through the corresponding agents.

D. P. Holloway.
Edwin B. Morgan.
Alvah Sabin.
E. D. Cullen.
Lewis D. Campbell.
G. A. Grow.

WORK FOR THE MONTH.

OCTOBER.

If there be any agriculturist who may be behind in his work, we would say to him in a spirit of kindness and of deference, that he should bestir himself, so that he may, by increased energy, make up for lost time. In every occupation in life, it is to the interest of parties never to procrastinate work of any kind; but with none is delay so dangerous as with planters and farmers, as season and time are intimately connected with the success of their respective operations, and none can trespass upon either, without jeoparding their welfare.—The followers of agricultural pursuits should lay it down as a principle from which they may not depart without injury, that all the operations of their farms and plantations should be executed at the right time, and in the proper way, and that delays and slights are things not to be indulged in. With these brief remarks we shall proceed to point out such matters as should be promptly attended to.

Wheat.

This grain, we believe, should be put in by the 10th of this month, at farthest, and that it would stand a better chance, had it been seeded on or about the first. With early seeding, we are aware that there is danger to be apprehended from the attack of that vile pest and drawback upon the wheat crop, the *Hessian Fly*, but notwithstanding its ravages, we have ever been the advocate of moderately early sowing, believing that it is good policy, to give the wheat plants time before frost, to form their roots and embed them firmly in the soil. Now then, let us say to all wheat growers who may not have seeded their wheat, to go industriously to work, and exert every energy to get it in without farther delay. As our remarks upon the subject of manuring, preparation of the soil, and seeding of wheat, last month were sufficiently full upon all these points, we will not repeat them here, but refer the reader to the September number of our paper for our views upon the subject.

Rye.

We need hardly say to our readers that this grain ought to have been seeded in August or early last month, as all farmers do know, that early seeding is always attended with the best success with rye. We will, however, say, that if put in in the beginning of this month, provided the ground be moderately manured, and well and thoroughly prepared, it may still be seeded. Upon one occasion we sowed a crop on the 24th of Novem-

ber, and made a good one. In mentioning this fact, we do not do so to encourage others to postpone their seeding to so late a period, as there is danger in it; for the seeding of rye should be done in August or September; in the latter month, the earlier the better; but we mention the fact of the lateness of our seeding, merely to show that if circumstances occur to prevent one from getting rye in at the proper time, that it may be put in later.

THRESHING OUT GRAIN.

In our last number we advised our wheat growing readers to address themselves to the business of threshing out their wheat, in order that they might have it ready to send into market whenever the prices would justify them in doing so. And we repeat this advice, from a sincere conviction of its propriety. We are very certain that there is no class of society in which watchfulness is so necessary to protect its interests as that of the agriculturist; he should strive to be always ready for the market, in order that he may watch its changes, and avail of them whenever they occur. We are certain that there is no class so liable to have their pecuniary interests sported with by unscrupulous speculators, none so likely to be despoiled of the fruits of their honest toils as those engaged in the pursuits of agriculture. And as such is the case, we exhort them to use unceasing vigilance to protect themselves from impositions and frauds.

ORCHARDS.

Treat the trees in your orchards as we advised last month and the preceding one.

PLANTING NEW ORCHARDS.

If you have no apple orchard on your farm, you should look upon it as a moral duty to plant out one this fall. Upon this point, every farmer and planter should consider it a duty that he owes to himself, to his children, and to society, to have a good orchard of choice apples, pears, peaches, and other fruit on his estate. In the purchase of trees he should avoid *tree-pedlars*, as he cannot rely upon such animals; buy of none but honest, substantial nurserymen; and if deceived by them, he should sue for heavy damages.

CATTLE YARDS.

If you have not hitherto done so, permit us now to prevail upon you to take this our advice: have as many loads of rough materials hauled and spread over your cow yard, as will make 12 inches in depth. In spreading, so fashion the materials as to be basin-shaped, the lowest point being in the centre, to prevent the escape of the urine. While the rough materials are being placed in and spread on the yard, dust each layer so spread with *plaster*, or with pulverized charcoal, and when completed, dust the surface with either of the substances named; then roll the yard to consolidate its contents—the heavier the roller the better.—Occasionally throughout the yarding season, spread plaster over the yard, and from time to time add more rough materials.

PUMPKINS.

Your crop of pumpkins should be gathered before they are injured by the frost. As to *the time* of gathering them, your own good judgment must determine. Have them carefully pulled, and as carefully hauled, so as to avoid bruising them. Stow them away carefully in a cool place. In feeding them out to your hogs and milch cows, you will increase their value as food by having them cooked. For hogs, especially, cooking is necessary, as it prevents their purging—for hogs, the addition of bran or meal is an improvement—for milch cows, they should have added bran or meal, and chopt straw or hay.

HARVESTING OF ROOTS.

Roots of all kinds should be harvested and put away before being injured by the frost.

MILCH COWS.

These generous creatures should, in addition to the scanty fare of the pastures, receive messes of succulent food, and hay at night. If you have not already prepared comfortable sheds or stables for them, go to work at once, in order that they may be accommodated in good quarters during winter and spring.

YOUNG STOCK

Should be provided with hay at night, and be provided with sheds for their winter quarters.

WORKING ANIMALS

Of all kinds should receive additional care and attention.

BUCKWHEAT.

Harvest your buckwheat before it is injured by the frost. When one-half the grain on the heads have turned black it should be cut.

After threshing out the grain, put away the straw for your cattle, as they will need it badly before spring, as the crop of hay has proved a short one, except in some favored dirstricts.

CORN STALKS.

Recollect that corn stalks properly cured, cut into half inch pieces, and steamed, make excellent provender for cattle, when mixed with bran or corn cob meal.

SELLING CORN—CORN COBS.

Shell your corn before selling it, and save the cobs for cattle feed, as you will surely want them before next spring, to sustain your cattle upon, unless you have been more fortunate than many others. Bear in mind, that there are 2-5th as much nutriment in the cob as there is in the grain.—Therefore, do not give them away and pay their freight to market; but keep them and have them ground up for your cattle. If you have no convenience for grinding them into meal, chop them in half, and boil them, throwing a handful of salt into the kettle. Mark our words—if you sell your corn on the cobs, you and your cattle will feel the want of them before next winter is half over.

FALL AND WINTER PLOWING.

All stiff clays, intended for cultivation next spring, would be improved in texture, by being plowed this fall and winter; provided they be not plowed when *wet*, or when *too* dry.

OUT-BUILDINGS—CELLARS.

If these have not been recently cleansed, have them cleaned out and white-washed.

The *Ohio Valley Farmer*, published at Cincinnati, says:—"Taken all in all, this season has been an unfortunate one to the cultivators of the soil. A long drought has caused all the early crops to produce poorly. If it shall teach us the importance of *deep tillage* and *under drainage*, the lesson though a dear one will be valuable."

WORK IN THE GARDEN.

OCTOBER.

We shall state briefly the things that should be attended to in the garden this month.

WINTER SPINACH.—Your advancing crop of winter spinach should now be weeded, and the plants thinned out so as to stand from 4 to 5 inches apart. In thinning out, leave the best and most flourishing plants.

LETTUCE.—Your lettuce plants, if of sufficient size, should be set out on a portion of a warm border, prepared for the occasion by manuring, digging and raking. In setting them out, place them 6 inches apart. The border should face the south or southeast, and be protected from the north and west. When the weather becomes very cold, mats on frames should be placed over them.

SETTING OUT CABBAGE PLANTS.—With the view of inducing you to take the preliminary step to secure your family in a supply of fine headed cabbages early next summer, we advised you last month to sow cabbage seed of various sorts, promising you at the same time, that when the proper time arrived for setting out the plants, that we would tell you how to do it, and as the time has well nigh arrived, we take pleasure in redeeming that pledge.

About the 10th of this month, select a dry loamy bed with a southern or south-eastern exposure. Your bed being selected, spread over it about three inches in depth of good stable or barn yard manure, over that spread ashes freely; dig the manure and ashes in a full spade in depth, taking care to rake as the spading proceeds, in order that the soil may be well raked and pulverized. Your bed being spaded and raked, spread your garden line across it, from east to west, three feet from the edge; then take a hoe and form a ridge four inches in height, pat the sides of the ridges with the back of the hoe to keep them from crumbling down, then stretch your garden line three feet from the first ridge, form another ridge as before, and so continue until you have ridged out your bed. Your bed will now be ready to receive the plants. Set out the plants on the north side of the ridges, about midway down from the top; place the plants about six inches apart; then dust your bed freely with a mixture comprised of six parts ashes and two parts plaster.

The close planting recommended at this time, is necessary to allow for loss by the frosts of winter and early spring.

Towards the latter part of next month, strew stable manure along the bottom of the ridges, along the line of your plants; this is all that is necessary to be done until next spring.

Next spring, as soon as the earth is sufficiently dry to be worked, draw the earth from the top of the ridges down upon the manure at the bottom, as the first working of the plants, working at the same time between the rows with the hoe to lighten up the ground and eradicate any weeds or grass that may have sprung up. As the plants become large enough for the purpose, you may draw them for culinary purposes, observing care to leave a plant at every two feet.

As soon in the spring as you may consider the plants in danger of being stunted from being too close, then you must thin them out so as to stand two feet apart, as before suggested. At this thinning, give the growth a good hoeing and draw a slight hill around the plants. In about two weeks after this, give the plants another working and slightly increase the hills around them, and give the plants a dusting of a mixture comprised of four parts ashes, two parts salt, and two parts plaster. In about two weeks after this, give the plants another hoeing, and you may rest assured of having a luxuriant bed of early headed cabbages. In times of drought, water the bed freely, as cabbages delight in moisture.

CAULIFLOWERS AND BROCCOLI.—Early this month give to all the late planted cauliflowers and broccoli a good working.

CABBAGES.—Give the beds containing cabbages of all sorts a thorough working, and the plants their last hilling, taking care to destroy everything in the shape of weeds and grass.

ENDIVES.—Tie up such of your endives as are fit for blanching, and give the stalks a hilling.

ASPARAGUS BEDS.—As soon this month as the stalks of the asparagus turn yellow, cut them down close to the earth, carry them off the ground, clean the bed of weeds, drawing them into the alleys, dress the bed with well rotted stable manure, and strew a mixture of six parts salt and two parts ashes over it.

CELERY.—In dry weather earth up your celery for blanching, from time to time, as the plants may require it.

AROMATIC, MEDICINAL AND CULINARY HERBS.—Trim these off.

SMALL SALADING—May be sown on warmly exposed borders the first two weeks of this month.

ELECAMPANE.—Offsetts of the roots may now be planted out, or the seeds be sown.

RHUBARB.—The seed of the rhubarb or pie plant should be sown early this month: if their sowing should be delayed till next spring, many of them would not vegetate for a year after, but when sown this month, if the seeds are fresh and perfect, the plants will come in early spring.

SHALLOTS, GARLIC, CHIVES AND ROCAMBOLI.—The roots of these should be planted out this month.

ONIONS FOR SEED.—From the 15th of the month to the end of it, is the proper time for setting out onions for seed.

HORSE RADISH.—Plant out a bed of horse radish any time this month, the earlier the better.

TAKING UP CARROTS, BEETS, &c.—Such roots as these, if full grown, should be taken up and stored away towards the latter end of this month.

RASPBERRIES.—New plantations of these may be made about the middle of this month.

GOOSEBERRIES—CURRANTS.—Towards the last of this month, set out gooseberry and currant bushes, distance apart six feet.

Cuttings of these may be planted on a warm southern exposed border.

STRAWBERRY BEDS.—Clean off your beds of strawberries, and give them a dressing comprised of a compost of seven parts rotten dung and one part ashes.

New beds of strawberries, if neglected last month, may be formed early this month, the earlier the better.

VACANT CLAYEY BEDS.—If you have any stiff clayey beds vacant in your garden, have them dug up, left in the rough, and give them a dressing of slaked lime or slaked ashes, and permit them to remain all winter to receive the benefits of the frost.

For the American Farmer.

Quantity of Seed per acre—Disparity between number of Seeds sown and plants perfected on the same ground.

BAYOU LAFOURCHE, LA., Sept. 2, 1856.

Messrs. Editors:—The introduction of the drill culture has been productive of economy in the quantity of seed sown per acre, while the decreased number of seed bushels has not decreased, but rather augmented the number of bushels in yield. This is caused by the better covering of the seed in drill than broadcast, and by the air passing through, and in contact with the stalks of grain much better, thus enabling the grain to draw from the atmosphere in a more thorough manner, the peculiar nourishment, (ammonia, nitrogen, &c.,) it should have. The question arises in my mind, is there not yet too much seed sown to the acre? and would not a yield equally large, if not greater, result from sowing less seed to the acre, but sowing that seed thoroughly, and *farther apart*.

The question suggested itself to me some years ago; and since, on reading the experiments of Rev. Sidney Smith, it again presents itself. In these experiments which were corroborated by successive years sowing, Mr. Smith procured as much grain to the half acre as is ordinarily got from one acre; in fact the yield was larger than the average either in Europe or America. Single grains sown three inches apart, in drills a foot apart, "a space of three feet being left quite bare between each three rows, and this was continued in alternate strips all across the field." What caused the increased yield? The land had not been in cultivation for one hundred years. I admit it had time to receive from the atmosphere during this long rest, a sufficient quantity of nitrogen and other enriching agents to give to the growing crop all the manure it needed. But would the crop have been as large in yield had it been sown in the usual manner? I think not, and we shall see this by another experiment. True, we have large yields of grain from the rich, virgin soils of our own country, but not equal to that produced by Mr. Smith, with the small proportion of seed sown. The cultivation of the crop which Mr. Smith gave it was of great benefit—he says, "in the spring I well hoed and hand weeded the rows of wheat, and stirred the intervals with a one horse scarifier three or four times up to the very period of flowering in June." Now had not the wheat been sown in drills *farther apart* than usual, such cultivation could not have been given to it. "The quantity of seed used per half acre was a little more than a peck." Mr. Smith says, "adjoining the field in which these experiments were carried on was another which had four ploughings, ten tons of manure, six or seven times as much seed, and yet it gave a quarter less to the acre."

These experiments repeated from year to year gave the same results, with greater success. Did this result proceed from the mode of tillage, principally hoeing; from the sustenance derived from the atmosphere; (the mode of planting insuring each plant its due allowance of nourishment from the atmosphere) or from the manner in which the grain was sown, and the small quantity of seed giving each grain room to germinate and mature?

Let us examine an article in the Country Gentleman for August 14th, current year, page 109, entitled, "A curious question." It says, "it is a singular illustration of the inexactness of Agricultural knowledge, that the question, how many seeds there are in the pound of our commonly cultivated field plants, should still remain to be answered. It is plain that the answer will not necessarily effect farm practice—for the quantity of seed which it is proper to sow per acre, is a matter to be determined by experience, not by argument apart from trial; and yet surely it is most desirable to compare the number of seeds we ordinarily sow with that of the plants we raise. If in ordinary practice 1,200,000 seeds of wheat are sown on every 40,000 superficial feet, or what is more extraordinary, fifteen to eighteen million seeds of flax are scattered on the same extent, about three to every inch of land, it is surely well to let the farmer know it. He knows very well he does not raise so many plants as this—and struck, as he must be, by the enormous disproportion between the means he uses and the result he gets, he will inquire into its causes. The turnip seed employed per acre, numbers from 600,000, to 1,000,000; according to the kind and quantity adopted: this, if the rows are two feet apart, is two or three dozen seeds per foot of row, where a single plant alone is to be grown. No doubt nothing like so many generally come up, but then there is a great destruction by the hoe, which will explain much of the discrepancy in this case. What, however, becomes of the 18,000,000 seeds of flax which are commonly—of the 6,000, 000 seeds of oats which are sometimes sown per acre? There is no destruction by the hoe, in either instance here. A single ear of oats may contain 100 grains—a single plant will generally include half a dozen ears, but if 6,000,000 plants should yield as much as this implies, they would produce 100 loads of grain. Instead of 600 seeds apiece, they yield but half a dozen each, to produce an ordinary crop of oats. It is plain that five-sixths of the seed, or of the plants that they produce, are killed in the cultivation of the crop; and the proportion is vastly greater than this in the case of other plants. What is the ordinary seeding of the clover crop? Eight pounds of red clover, four of white clover and four of trefoil may be sown—that is at least 6,000,000 seeds per acre—a seed on every inch of land; but instead of 144, are there generally half a dozen plants on every square foot of the clover field?"

"It is manifest that in both these cases there is an enormous destruction either of young plants or seed; and these are the two great divisions under which the causes of this anomaly must be classed; faults of seed and sowing and faults of cultivation."

Now suppose from a change in the mode of cultivation and quantity of seed sown a general increase of yield was produced, this would not be the only gain to the farmer. If he sows fifty acres of wheat in the current method it will take from 50 to 75 bushels of seed wheat, valued at $1.50 per bushel, least cost will be from $75 to $112.50.—Let us take the smaller number of bushels as the average sown per acre, this gives 50 bushels sown at $1.50 is $75.00. Now take twice as much seed per acre as the Rev. Sidney Smith used—half a bushel per acre for 50 acres gives us 25 bushels, at $1.50 per bushel is $37.50 saved. If we can save twenty-five bushels in seeding fifty acres wheat land, what an enormous amount would annually be saved to the wheat growers of the United States.

I have penned these remarks, Messrs. Editors, as a hint to call attention to the subject, that we sow

too much seed to the acre; and it is, I think you will admit, of sufficient importance to demand the attention of farmers, and lead them to some practical result, beneficial to Agriculturists generally.

I hope to be able to commence a series of experiments myself, upon this subject, next year, the result of which shall be duly made known through the columns of the American Farmer. I might have cited, to strengthen my argument, the fact that men, animals and trees, grow best where they are not crowded too close together—and the farmer thins out his corn, turnips, &c., that those left may yield more. Why not sow with the small grains, or rather why not sow less on the same space, that each seed may receive its quantum of nourishment from earth and air, and germinate and mature as God intended it.

I trust Mr. Clemson will soon be able to give publicity to his new method of cultivation, whereby increased products may be obtained at but small increased expense. I cannot but think there are great secrets yet unfolded to us, in respect to the mode of tilling the earth and cultivating plants for man's use. We need careful experiments *assisted*, not *governed* by, Chemistry, nor confined to one location, but general, to add to our experience and shed the light needed by us, on the noblest calling of man, Agriculture. H. H.

[We shall be very glad to hear from our correspondent as to his proposed experiments, or upon any other subject connected with agriculture.—*Eds.*]

WHEAT DRILL WITH GUANO ATTACHMENT.

White House Farm,
Near Centreville, Md., Sept. 5th, 1856.

To the Editors of the American Farmer—

Gentlemen:—Yesterday, on my way up from Talbot, to visit my farm here, I received yours of the 2d inst., and in reply, have to say, that the Wheat Drill, with Guano attachment, and also a Grass Sower attached, made by Bickford & Huffman, of Macedon, N. Y., and put up and sold by them at their warehouse, No. 90 South Charles street, Baltimore, is probably the best implement of the sort in use.

As a simple wheat drill, I consider it a perfect implement, at least I know of no imperfection in it after drilling a very large crop with it last Fall. The grass sower sows beautifully, the seed falling like a mist—(it took so well, that it—timothy—injured my wheat;) and as to the guano attachment, that, as I conceive, greatest desideratum in agricultural implements at the present time, it worked admirably as long as it worked at all; the guano being evenly and uniformly distributed, with no hindrance from choking, and the wheat exhibiting a regularity in its subsequent growth which clearly showed that the guano had been deposited at an uniform rate.

The cog-geering which moved the guano attachment was, however, too light and badly arranged, and it wore rapidly and finally broke. Those made for this Fall's sales, are entirely altered and improved in regard to the said geering, and in some other particulars as to the guano attachment, and after very close scrutiny, I can perceive no apparent defect in them, but feel quite confident that they will not be likely to get out of order. You will understand, therefore, that I consider this implement to be, as a simple wheat drill, *first rate and the best;* as a grass sower, the same (if it be judicious to sow grass at the time of wheat sowing,) and as to the guano attachment, I consider that, in respect to its principle, it is correct—certainly the best I have seen or heard of, and the only one yet offered, that will answer the purpose; and that it will probably operate without breaking as it did last year; but neither my judgment, nor is that of any man infallible in this regard: thorough trial may exhibit a weak point somewhere which had previously escaped observation. And this is true of all untried machinery.

I had last year, also a Pennock drill, with guano attachment, and as a wheat drill it was entirely inferior to the other, and its guano attachment was a miserable abortion.

Nelson's, the Pennock, and other attachments may operate with guano mixed in small proportion with sand or some other ingredient that will not pack and clot as does Peruvian Guano, when subjected to pressure; but it is to be observed that this would involve necessity for very frequent stopping of the drill to fill the guano hopper, besides the cost and time of mixing the guano with the other material—all tending to retard the wheat sowing; and that the early sowing of wheat, after it can be done with safety, is of primary importance to the success of the crop. Therefore we want an attachment that will drill pure guano in minute quantity. Bickford & Huffman's will do it as long as it will continue to operate, and in its present form it will, in my opinion, *most probably*, work without liability to break. The guano attachment is warranted. I have now, sir, given you "currente calamo" and guardedly, my opinion of this drill.

I will also state, that at the July meeting of the Board of Trustees of the Maryland Agricultural Society for the Eastern Shore, of which I am Secretary, the opinion was expressed unanimously that from the trials made in Talbot upon the last crop of wheat, the best and most economical mode of applying guano was to drill it in with the wheat, provided a drill could be obtained to effect that object with regularity and precision.

Yours, &c.
M. Tilghman Goldsborough.

EXPERIMENTS WITH GUANOS AND SUPER PHOSPHATES.

Denton, Md., August 24, 1856.

To the Editors of the American Farmer:

Gentlemen:—I promised you last June, to give you the result of some experiments I intended making with some Colombian guano. If it is not too late now to inform you of the result of my trials, you can do with this letter just what you please. I bought half a ton of Colombian, measured three acres of ground, divided the ground in fifteen lands, and put a gallon of millet on each land. On the first I applied Peruvian guano at the rate of 250 pounds to the acre, the second, 125 pounds of Peruvian and 125 of Colombian, on the third, one-third Peruvian and two-thirds Colombian, on the fourth, one-fourth Peruvian and three-fourths Colombian, and kept diminishing the quantity of Peruvian at the same rate until I put Colombian alone on the fifteenth land; all the millet came up well, but now the first is the best, and the second land is nearly as good, the falling off begins at the third land, and it looks, when you glance at it at a distance, like a long range of steps 70 yards long. I do not know why the millet

branched so much where the Colombian is applied, it is so thick that it will not grow well. I am afraid the Colombian guano had not time to dissolve on account of the drought we have had here, and consequently could not act. I expect to buy some this fall to go on my wheat. It must have some strong fertilizing powers, for if it had none, the millet would not have branched as it did. I would advise those who use Colombian to mix it with Peruvian, half and half is the best proportion; it will lessen the price of this fertilizer, and I think will insure a crop of clover.

I have had occasion to try twice the preparation which is called DeBurg's Super-phosphate. It has done me more harm than good—the large amount of salt, (chloride of sodium,) that was in it, burnt all the grass that had been seeded with it. Since I mention grass, I must say a few words about Iverson's. It grew well on rich ground, but on poor land it looked like what we call here *poverty grass*. It is the same with the Oregon peas—the tea-spoon full that you gave me last year, gave me a gallon of seeds—the vines were as large as barrels where they grew in my garden—but this year I put them in the field near the black eye pea, and there is no comparison—the latter are a great deal the better. If any one takes offence at this communication, I cannot help it.* If farmers do not protect each other, they will be imposed upon more and more every year—your paper is for our protection. I have been farming for more than five years, and I always found that your whole attention was directed towards our interests. Every farmer who wishes to learn and save some money, ought to send for your interesting journal.

C. O. P.

*We see no reason why our correspondent should suppose any one could take offence by giving the result of his experiments—other results have been experienced by other persons, perhaps under different circumstances.—*Eds.*

EXPERIMENTS IN THE APPLICATION OF BARN YARD MANURE TO WHEAT.

To the Editors of the American Farmer:

GENTLEMEN:—Noticing that the farmers in our county, as well as those in many parts of the State, are now busily engaged making preparations for the pitching of their wheat crops this fall, I will make a few remarks which, if timely, I hope will prove pecuniarily beneficial to those favoring them with their notice. It is respecting the application of barn yard or other manures for wheat. Riding out a few days ago, I observed that some of our oldest (and considered by many the best) farmers in the county, were hauling their manure, spreading and plowing it under, from six to ten inches deep, thereby completely depriving it of the action of the atmosphere, which I consider coarse manure requires for its decomposition: especially corn stalks, with which many barn yards are covered. And again I have noticed, plowing my wheat stubble for corn, that the roots and fibres of the wheat had not attained a sufficient depth to be materially benefitted by the manure which was plowed under, say ten inches deep; the soil being somewhat argillaceous, also aided in keeping the ammonia beneath the surface, and from affording the sustenance to the wheat which was necessary for its vigorous growth—this coming under my observation in the spring, the following fall I resolved to put my theory into practice, and accordingly I selected a piece of land apparently possessing as much similarity in mineral substances as is usually found in lands in our State, and divided it equally into two parts; on one half I caused the manure to be spread on the sod or surface and plowed under as deeply as we usually plow land for wheat, which is from eight to ten inches, then harrowed down to a fine tilth, and sowed about 1¾ bushels wheat per acre, and covered with shovel plows.

The other half we plowed the same depth as the former, after which hauled and spread the same number of cart loads of manure as on the former, harrowed and cross-harrowed, sowed 1¾ bushels wheat to the acre, and finished by shovelling wheat and manure all in at the same time. The result was, when harvested, that the latter half, or where the manure was plowed in with the wheat, yielded us at least one-fifth more wheat than the former, convincing me that I have lost (and I believe my fellow farmers likewise) our seed, by following the old method of applying barn yard manures.

Respectfully yours, J. B. O.

GREENBRIER AGRICULTURAL FAIR.

To the Editors of the American Farmer.

The third annual Fair of the Greenbrier Agricultural Society was held in Lewisburg the 27th, 28th and 29th ult. An excellent address was delivered by Gen. G. S. Meem, of Shenandoah county. The weather was fine, and the vast crowd in attendance every day was beyond expectations. The entries in every department was considerably larger than at any previous Fair. The display of cattle could not be surpassed in Virginia. There were four bulls, besides heifers, owned by members of our Society, who had purchased them at high figures in Kentucky. A young Jack 16 hands in height, was purchased in Kentucky last Fall at a cost of $1000. The performance of horses on the trotting track, showed considerable improvement over last year. Our Society has exerted a happy influence, especially in the improvement of Stock, not only in this, but in the surrounding counties. We have secured a beautiful lot of 30 acres, and, by laborious exertions, it was fitted up in readiness for the Fair, the last nails having been driven on the morning of the 27th, just as the gates were opened to receive the assembled crowd. On the last day, there was a most interesting exhibition of all the premium animals.

AN INTERESTING INVENTION.

Mr. Jno. W. Truslow, of Lewisburg, who is a member of our Society, exhibited at the Fair, a model of a "Fender, Screen and Blower for fire places," patented by himself in July last. It is a most ingenious, and I think, useful contrivance. Lift a plate, and touch a spring, and out flies from the jamb, a fender. With ease, it is folded back again so as to disappear. By a similar process, you have before your face a fire screen. A blower is let down as low as you may wish, or, with it you may entirely close the fire place, and arrest combustion. Touch a spring and the blower immediately disappears. Mr. Truslow informs me he has already sold *rights* to the amount of $3000.

"A NEW ENEMY IN WHEAT."

Last Fall, I furnished the Greenbrier Era with a short communication under the above caption. By some means it found its way into the columns of your Journal over the signature of a *Mr. Anderson*, of Greenbrier County, Va. Mr. T. L. Skin-

ner, of Edenton, N. C., in reply to the article, says, in the March No. of the American Farmer, that a field of his wheat, in the winter of 1850-51, seemed to suffer greatly from the depredations of the same insect—an insect, if not the same, very much like that which infests the weeping willow, but that it disappeared in the spring, and the field produced more than an average crop of wheat. As in the case of Mr. Skinner, the insect disappeared from my field. I saw nothing of it after the disappearance of the winter's sleet and ice. Such, however, were its ravages last Fall, in some places entirely killing the wheat, that I made not more than half a crop. Yours, very truly,

L. A. ALDERSON.

Palestine, Greenbrier Co., Va., 4th Sept. 1856.

SEED WHEAT.

ACCOMAC C. H., Va., Sept. 17, 1856.

To the Editors of the American Farmer:

Looking over the September number of one of my agricultural journals, I find an article on Mediterranean wheat, (you may have seen it, the Southern Planter I refer to,) it has suggested to me to give you, briefly, my experience with a few of the varieties of wheat now in use.

In October, 1854, I seeded several varieties of white wheat, on land of similar quality and with similar treatment. The precise quantities seeded, and amount of guano applied, I forget; but the varieties were Gale's Early White Flint, Thimble wheat (of which Mr. James Garrison, a neighbor of mine, raised in 1853, 60 bushels and one peck on one and 1-11th of an acre, or about 55 bushels per acre,) and Pennsylvania Blue Stem.

All, (as I said above,) were in all respects treated precisely alike. The result was, that I found the Gale and Thimble badly winter killed, while the Blue Stem seemed to be but slightly injured, and produced a fair crop, while the other varieties produced but inferior crops. The experience of a friend and neighbor, (B. T. Gunter, Esq.,) the same year, coincided precisely with my own, and he, as I have, has entirely abandoned the use of all other wheats, except the Blue Stems. During the past winter of unprecedented severity, the Blue Stem has been found to resist the winter more successfully than any other wheat sown among us.

This hasty scrawl is not written for publication, but if you think it worth its room in the columns of the American Farmer, it is at your service, (after revising and correcting).

Respectfully, yours, "AGRICOLA."

THE FARMER IN VIRGINIA.

RICHMOND, Va., Sept. 4th, 1856.

To the Editors of the American Farmer—

GENTLEMEN:—Enclosed is one dollar, given me by Mrs. J. S. B., which she desires me to say she wants applied as subscription to the American Farmer for one year. It affords me much pleasure to aid, as far as in my power, to swell the list of your subscribers. I do so, because I *conscientiously* believe your journal an *invaluable one*, and is doing more to advance the cause of agriculture than all others in the Union put together. You keep the farmers advised of whatever makes for their true interests, and stand ever ready to buckle on your armor to do battle in their defence. You are a sentinel truly worthy of the post which you hold. For one, I feel under lasting obligations to you for the valuable instructions I am constantly receiving. I never rise from its perusal without having learned something new.

CURING HAMS—CROPS.

To the Editors of the American Farmer—

GENTLEMEN:—Your September issue gives a memoranda by Bordley, shewing the loss of weight in curing of hams, which brought to my recollection an experiment I made some years since, to ascertain the relative difference in the prices of pork and bacon, which I herewith submit:—I selected for the experiment a hog that weighed 152 pounds, which was cut up in hams, shoulders, and sides. The head, chine, back bone, spare ribs and leaf fat of which weighed 40 pounds, but were estimated at half their weight, to make them equal to the joints and sides in value; this deducted from the 152 pounds gross, left 132 pounds, 1-6th off that amount for smoking and curing, left of bacon 111 pounds, or 73 pounds of bacon to the 100 pounds of pork; hence if pork cost $6 per hundred, bacon should cost $8.22. Whilst giving this experiment, I cannot refrain tendering you my grateful acknowledgements for your untiring efforts to advance the farmers' interest. Your notings of the state of crops in this country and Europe, enable them to avoid the impositions of speculators, and thereby entitle you to their gratitude; you might add to the title of your journal *The Farmer's Friend*—the information on this score, independent of that on agriculture and kindred subjects, is worth more than years' subscriptions,—my astonishment is that every farmer does not avail himself of the benefit he might derive from the perusal of your journal. May success attend you. R.

Mount Landing, Va., Sept. 15, 1856.

THE CROPS IN VIRGINIA.

A very intelligent correspondent at Richmond, Va., writes the American Farmer as follows:—

"If my memory does not deceive me, I think I wrote to you, before the farmers had secured their crops of wheat in this section of the state, representing them as very little more than half an average.

"The crops are now all secured, and I am fully borne out in my supposition, as the result clearly shows. In my immediate neighborhood, the crop scarcely amounts to the half of an average—I fall short in my calculation of my own crop, although the quality of the grain is good—and my neighbors, if anything, will be more disappointed than myself. I believe it is now considered a 'fixed fact' that the crop of wheat in *Virginia* is a very short one, and judging from the facts, your *faithful* mirror has so carelully collected and *reflected*, I should say it is short of an average throughout the Union. In my letter to you, or in the one referred to above, I stated that notwithstanding the European war had been brought to a close there was nothing in the condition of the crops throughout the Union, that would warrant the supposition, that the price of wheat would decline; on the contrary I gave it as my opinion, that former prices would not only be maintained, but possibly enhanced. I still adhere to this opinion, now that we have all the light that can be shed upon the subject. Your valuable paper wisely cautioned the Farmers against rushing in their wheat in the month of August, as during that month, the price might be expected to be low. In this State, particularly about Richmond, there seemed a disposition in the farmers to deliver early; and what was the consequence? a glut followed; the mills became filled up, and the millers grew indifferent about buying. The price in consequence declined, but not from the discovery of the fact

that there was an abundant crop made. Everybody is now satisfied on this score. Prices continue from abroad, with an upward tendency at home, and (mark my prediction,) before the 1st of May next, wheat will reach $2 per bushel, if it does not go beyond. And why should it not? The chinch bug, which was so destructive to the wheat, only left it, after it reached maturity, to commence its ravages on the corn. The mischief that it has done, the housing of the present crop will disclose to the utter astonishment of all. I have stripped my fodder, and cut the tops in parts of the field where I supposed the corn was best—enough is seen to determine the character of the crop. It is but "a beggarly account of empty boxes." Taking an area of fifteen miles in circumference from my farm, there will not be *half* enough corn made, to support the resident inhabitants. I have no disposition to draw a gloomy picture of the crops—you will find the facts to be such as I have described them. Ten thousand millions and ten to that, of chinch bugs, are in the fields of corn, and are seen marching and countermarching, in every direction, so soon as the blades are stripped from off the stalks. Besides these, the *army* worm, has recently made its appearance, and proves exceedingly destructive to the young corn sowed for fodder and planted late, to turnips, to volunteer oats, and the second crop of clover. A gentleman of strict veracity, one of my neighbors, told me he had a beautiful field of clover about knee-high, which he intended cutting the second time, but that two or three days before he proposed carrying his plans into execution, he visited the field, and found these little animals had saved him the trouble. There was nothing left but the bare stems, every leaf and every blade being stripped off and consumed in so short a period of time. These worms are about an inch or inch and a half long, striped, and resembling very much the caterpillar. It is well they began their work of mischief so late in the season; had they begun on the corn crop early in the spring, there is no telling the consequences.

"From all sections of tide water Virginia, we are daily receiving these gloomy accounts of the prospect for corn. In view then of all these circumstances, (and I appeal to you to say if they do not accord with the information you are constantly receiving) are we not justified in supposing that both wheat and corn will continue high, at least for some time to come? What is there in the nature of things to bring down the price? Corn being scarce, not enough for our own consumption, a greater amount of flour will be required, and the more we consume at home, the less, as a matter of course, will we have for exportation. Then, my own opinion, founded upon these data, is, that wheat and corn will be high, for at least the next twelve months, or until another crop shall be made. I wish you to note my prediction."

DOMESTIC GINGER BEER.—Two gallons of ginger beer may be made as follows:—Put two gallons of cold water into a pot upon the fire; add to it two ounces of good ginger, and two pounds of white or brown sugar. Let all this come to the boil, and continue boiling for half an hour. Then skim the liquor, and pour it into a jar or tub, along with one sliced lemon, and half an ounce of cream of tartar. When nearly cold, put in a teacupful of yeast, to cause the liquor to work. The beer is now made; and after it has worked for two days, strain it and bottle it for use. Tie the corks down firmly.

DRAINING.

We repeat our advice of last month, to drain your *wet* lands. The experience of land owners in Europe, as well as in this country, corroborate the truth of the following views of Professor *Gray*, of Andover College, Massachusetts, in his admirable work on Scientific and Practical Agriculture—a work, by the bye, which should be in every agriculturist's library.

Professor Gray very forcibly points out the advantages, thus:

"The necessity and importance of draining wet grounds, may be rendered evident by the following considerations:

1. An excess of water or moisture prevents the ploughing and pulverizing of the soil until late in the season, and when the attempt is finally made, it can but imperfectly succeed; hence the manures not being properly incorporated with the soil, are deprived of their effects upon the roots. The crop is checked, and is liable to be injured by early frosts.

2. An excess of moisture prevents the process of decay, or the decomposition of the organic matters in the soil, and thus cuts off a regular supply of food. This effect is exemplified in peat swamps, where the vegetable matters being prevented from decay by water, accumulate in large quantities, to the depth often of 20 feet, and form peat.

3. Lands which have an excess of water, often become *dry* and *compact* in seasons of drought. The roots are thus prevented from penetrating the soil, and from extending themselves freely in all directions, but the influence of air and of the dew, which are so important in dry weather, are almost wholly excluded from them. Hence such soils, especially if they are stiff clays, suffer as much from drought as from excess of moisture.

4. When the roots of plants extend into a wet soil, the food is too much diluted, or is not prepared in sufficient quantities to ensure a healthful and vigorous growth. Leaves and ill-formed shoots will sometimes be abundant instead of flowers and fruit.

5. An excess of water injures and destroys the fibrous portions of the roots or springlets, by means of which, nourishment is received. This effect takes place when the water becomes stagnant and putrescent as it is liable to become when the land is level and the sub-soil retentive. In others, the plants rot off at the ground, especially if there is light and heat.

6. An excess of water excludes the influence of heat and air, two indispensible agents in the growth of plants.

7. Experience shows however well a soil may be constituted in its mineral ingredients, and however rich it may be in humus or geine and salts, no cultivated crop will flourish well, unless the surface of the soil itself, is made dry during the growth of the crop, and when required to be worked by the plough or hoe.

Hence the *utility of draining* must be evident to every farmer. For a system of draining, rightly conducted, will not only remedy the evils above described, but will save much time and labor in the cultivation of the crop; two weeks at least will be gained by the gathering in and ripening of it. The *product will be one-third greater, and one-third of the labor saved in the tillage.*"

BAY STATE HORSE.—Owned by M. V. Stone, South Acton, Mass.

"Bay State is six years old; was sired by the original Black Hawk; his dam was one of the finest Morgan mares ever raised in this country. Good judges pronounce Bay State the best proportioned horse they have ever seen.

"Considering the pedigree of both sire and dam, and the horse himself, he is probably fully equal in all respects to any *stock* horse in America. His stock, so far, which can be seen in the vicinity of Acton, are of the highest order, and will compare with any horse's stock in the United States."

VARIOUS BREEDS OF HORSES.

[From "The Rural Cyclopædia, or a general Dictionary of Agriculture," &c., published in Edinburg, Scotland, 1854.]

[*Continued from page* 73.]

British Breeds of Horses.

"*The thorough-bred 'English race-horse* has long had the reputation of being the finest variety of the horse in the world; and it has contributed fully more than any of our other breeds to acquire for Britain the fame of being the world's emporium for good horses; *but it has for some time past been very visibly degenerating*;' and unless it be promptly and generally subjected to new influences of propagation and management, it threatens speedily to become inferior to several breeds, not only of the old world, but even of America. Its origin is ascribed by some writers entirely to eastern parentage, in both sire and dam: by others, to the aboriginal horse of England, slowly and elaborately improved by crossing with the best eastern breeds, particularly the Turk, the Barb, and the Arabian; and by others, and these the most judicious, to fine foreign specimens of unknown or obscure derivation, crossed with the Barb and the Arabian, and ameliorated by the influence of our climate and the most skilful and assiduous management. The thorough-bred racer of the present day, or emphatically the English horse, is generally distinguished by a head like that of the Arabian, a tapering and finely poised neck, oblique and long-ish shoulders, well-bent hind legs, full fleshy quarters, flat legs, shortish below the knee, and long and elastic pasterns. But the English race-horse of former periods, as compared in a general way to the present race-horse, had a superfluous fulness of form, and a richer combination of speed, stoutness and structural powers. *Sedbury, Old Partner*, and other distinguished race-horses of the middle of last century, possessed compact bodies, capacious chests, fine limbs, and an admirable bearing; *Mambrino, Sweetbriar, Sweet William*, and other celebrated ones of a later period than the former, had not only compact bodies and spacious chests, but strong lines, strong joints, muscular arms, and long, well inclined, massively muscular shoulder-blades; and *Sharke*, Johnny Gimcrack, and other famous ones of the concluding part of last century, while they evolved the properties which indicate increased speed, did not lose any portion of those which indicate requisite strength, but had capacious chests, finely hooped ribs, long and tolerably

well inclined shoulder blades, massively muscular arms, withers and quarters, large pastern joints, and admirably adjusted hind feet, pasterns, and back sinews. But *Muley-Molock, Selim, Pericles*, and other chief racers of the commencing part of the present century, began the series of degeneracy, and were as distinctly inferior to their predecessors as superior to their successors, and while possessing such an elongation of the skeleton, and such accompanying and dependent properties as materially increased their fleetness, they were decidedly less powerful in both structure and work than any of the good racers of the preceding sixty years, and had longer backs, heavier limbs, less muscle, smaller sinews, and sharper withers. "From that period to the present," remarks a reviewer of Hookham's Comparative View of the form and character of the English Racer and Saddle Horse, "racers have lost much of their vigor and stoutness, and their structural development has been entirely promoted for one object, speed. Heavy stakes and lowering the standard of running from heats to a single run of short distance, have been the consequences of unfortunate changes; whilst the continuance of these conditions has been the cause of perpetuating them. The result has been exceedingly unfavorable to the character of our racers and saddle horses, producing weakness, and disposing them to coarseness. The long back, flat sides, long limbs, weak loins, delicate constitutions, and strong disposition to local and hereditary disease of the modern racer and saddle horse, are inadequate substitutes for the short back, short limbs, capacious chests, full sides and muscular character of the old racer and hunter. Speed and weakness are no compensation for loss of vigor and stoutness." In fact, the immoral spirit of the race course—for immoral it is, and very deeply immoral too—has been smartly working out its own punishment, and now sometimes dooms its human victim to see his darling horse doomed to disablement or death by a single run of less than two miles; and—like every other propensity which sacrifices all regard for the common good to the gratification of selfishness and passion—it has spread a baneful influence over society, and even done serious damage to some of the interests of common industry.

"'The form of Sharke,' says Hookham's Comparative view,' was more advanced by art, for the purpose of speed, than that of any of the preceding horses. As an artificial production intended for a special purpose, the form of this horse probably could not be essentially improved. He might not be so fleet for one or even two miles as the modern racers; but for four miles, or any greater distance, he must have beaten them. His chest was capacious in the right place; if a horizontal line had been drawn through it a little below the withers, it would have been found longer than a line passed through the largest of our modern racers. This horse's ribs were finely hooped; his shoulder blades had a good inclination, and great length; the mass of muscle on his arm and withers was considerable; his quarters, the placing of his hind feet, his large pastern joints and back sinews were all admirable. We must yet admit that as a stallion he had lost much of the masculine character of nature. Doubtless he acquired speed under this change, but his offspring would require to be narrowly watched by a breeder looking to the future as much as to the present.' Recovery was bred in 1827, and was a celebrated winner in 1830 and 1831. He was chesnut colored, and stood fifteen hands two inches high; and, as compared to the vast majority of modern racers, he had great muscular power, fine action, and a singularly elegant outline. We are told that, when an equestrian statue was resolved upon as the fittest subject for the Wellington Testimonial, and when the execution of the group was entrusted to the taste and skill of Mr. Wyatt, 'he, after looking long in vain for any horse of such proportionate beauties as should be pleasing to the common eye, without offending the severe taste of the classic, declared at last that such rare qualities were only to be found united in the shape, and symmetry of limb displayed by Recovery.'"

"THE HUNTING HORSE, *or Country Gentleman's Saddle Horse*, ranks next in value and beauty to the race horse, and partakes, or ought to partake, of his peculiar qualities to the extent, in technical language, of being half-bred to three-fourths, or even seven-eighth's bred. 'But' says the reviewer formerly quoted, 'the degeneracy of the race horse is an evil not alone affecting itself—it is permitted greatly to influence the character of our saddle horses. Farmers cannot breed saddle horses without the aid of the racer; and yet over the quality of this animal they have no control. As may be expected the offspring displays many of the bad characteristics of the parents. Hence, farmers will not largely enter into the breeding of saddle horses; they consider it subordinate to every other business of the farm, because they have no reliance on the excellence of the racer's offspring; and they pay little attention to a matter which produces a precarious return.

A prime hunter stands about fifteen or sixteen hands high; and has a small head, wide jaws, firm and arched crest, a lofty forehand, and a broad chest; and as compared to the racer, his shoulder should be as broad and oblique and rather thicker, his barrel rounder, his arm rather more muscular, his leg shorter, his pastern shorter and less slanting, his whole body shorter and more compact, and his action considerably higher."

"*The common Saddle Horse* may possess any character intermediate between that of a well tempered, easy going, and long enduring hunter, and that of the most miserable hired road hack; yet it has normal excellencies and is really as distinct a breed as the race horse, and constitutes in its proper state, what is technically called the hackney. The farmer's saddle horse, is, in some instances, a hunter, and in some, a hackney, but in the great majority, and with eminent propriety, it is a horse of all-work,—an animal adapted equally to the saddle and to the draught. A good one stands about fifteen and a half hands high, is stout and compact, possesses some of the blood of the race horse, and has a thicker, lower, and less slanting shoulder than the hackney. 'The little farmer,' remarks Youatt, 'does not want a showey, complete hackney. He should be content if he is tolerably well carried; and if he has taken a little care in the choice of his horse,—if he has selected one with sound feet, shoulders not too thick, and legs not too much under him,—and if he keeps him in good condition, and does not scandalously overweight him, the five days carting or harrow work will not, to any material degree unfit him for the saddle—especially if the rider bears in

mind the golden rule of horsemanship, always a little to feel the mouth of the animal he is upon. A farmer, and more particularly a small farmer, will prefer a mare to a gelding both for riding or driving. She will not cost him so much at first; and he will get deal more work out of her. There can be no doubt that taking bulk for bulk, a mare is stronger and more lasting than a gelding; and, in addition to this, the farmer has her to breed from. If he has a few useful cart-mares, and crosses them with a well-knit, half bred horse, he certainly will have colts useful for every purpose of agriculture, and some of them sufficiently light for the van, post-chaise, or coach. If he has a superior mare, one of the old Cleveland breed, and puts her to a bony three-fourths bred horse, or if he can find one stout and compact enough, a seven-eighths, or a thorough-bred one, he will have a fair chance to rear a colt, that will amply repay him as a hunter or carriage horse."

THE CLEVELAND BAY HORSE has a middle character between the saddle-horse and the heavy draught horse; and constitutes a well defined and much esteemed variety of coach horse. It is named from the fertile district of Cleveland, on the banks of the Tees, in the North Riding of Yorkshire; but it is bred throughout the greater part of all Yorkshire and Durham. It was formed by the progressive crossing of the race-horse with the native breed of the district; and it came first into prominent notice about the middle of the last century. It has an arched crest and high action; and is far superior to the old heavy coach-horse for the carriage, and considerably superior to the Clydesdale horse, and the old English black horse, for the lighter kinds of slow draught. But in the aggregate character of the individuals of the breed, it is now a much lighter animal than it was in the days of its early celebrity; for it has been crossed in greater proportion than before with the race-horse, and has in consequence receded farther from the properties suitable for slow draught, and become more eminently adapted for the precise purposes of a coach-horse. The prevailing comparative lightness of its form of the present day has given occasion to a general opinion that the Cleveland Bay, regarded as a distinct breed, has degenerated. The old Cleveland Bay has been known to perform a journey of 60 miles, four times in the week, completing each journey in a day, and carrying a weight of upwards of 700 pounds."

[To be continued.]

CLOVER SEED GATHERER.

Dr. Samuel D. Martin, of Clarke Co., Ky., gives in the Western Farm Journal, the following description of a machine which has been used by him for years, for gathering clover and blue grass seed. Dr. M. is the most eminent cattle breeder of that State, and with that feeling characteristic of his noble State, is anxious, in giving publicity to the description, "that others may also be benefitted by it." The Doctor remarks in connection with the subject, that the second crop of clover gives more seed than the first. It is customary in his vicinity, with those who save clover seed, to take the hogs off the clover as soon as the rye is ripe enough to turn them upon it, and then the clover is left to ripen a crop of seed. Without knowing the reason for it, unless it is, that the seed is injured by machinery in getting it out, yet he states it as a fact, that clover seed comes better when sowed in the chaff than cleaned. It may be that the young plant, when it first comes up, by pinning the chaff to the gound and retaining it about the root, secures from the decay of it a small quantity of moisture, which prevents its drying up.

The enormous price at which clover seed is frequently sold, should induce every farmer to endeavor to save at least sufficient for his own use, if not to sell; it is a heavy item in the expenditures of the farm, which ought, and we hope ere long, will be saved.

DESCRIPTION OF A CLOVER SEED GATHERER.

"I took inch and a quarter thick and wide oak plank, and after planing it, laid it off with a lead pencil in lines a foot long and one inch apart. I then took a hand-saw and sawed down each of these, holding the saw obliquely, so that by sawing in the same line again, but changing the direction of the saw, I cut out a piece like the letter V; with a chisel I cut out this piece from the under side. The points of the teeth were then sharpened. The planks thus prepared were screwed on with bolts to the platform of a slide that had a box in the back part to receive the seed. Then when a horse was attached, the machine was ready to gather clover seed, by stripping off the heads.—A pressed bushel of this seed will sow an acre of ground, and will seed it well. If the platform was made so that it could be raised or lowered in front, it would do better work, and it would probably be better to have a wheel to throw the seed back off the fingers. I have had it done by a man sitting in the slide. My slide is about four feet wide."

To arrange it for gathering blue grass, he says:

"I had hoop iron an inch wide, cut a foot long, and cut to a point at one end, and each piece punched with three holes. These were put in a vice and filed so as to have about the same slope at the sides as the teeth; each tooth had one of these irons fitted upon it about far enough apart for a blade of a case knife to be got between them, and is screwed on. The holes in the iron are reamed so as to allow the heads of the screws to sink to a level with the iron. Now the machine is ready for gathering blue grass seed. A man sits in the slide, and with a scraper draws the seed back as it is stripped. When the slide is full, put the seed in bags. A light, broad, sharp hoe awswers very well for a scraper; the handle should not be longer than a foot. However, the best scrapers that I have seen are made of a piece of scythe blade, having a forked piece of iron riveted on, and a wooden handle. When the teeth get clogged, the grass must be pulled from the under side, and the teeth cleaned of seed with a knife, or some other suitable instrument. A boy to ride and guide the horse, and a man in the slide will gather in a day from fifty to a hundred bushels of seed in this way.

"When I take off the irons to gather clover seed, I mark a number upon each one of them, so that they will all fit again when I put them back to gather blue grass seed."

AMERICAN FARMER.

Baltimore, October 1, 1856.

TERMS OF THE AMERICAN FARMER.

Per Annum, $1 in advance—6 copies for $5—13 copies for $10—30 copies for $20.

ADVERTISEMENTS.—For 1 square of 8 lines, for each insertion, $1—1 square per annum, $10—larger advertisements in proportion—for a page, $100 per annum; a single insertion, $15, and $12 50 for each subsequent insertion, not exceeding five. Address,

S. SANDS & WORTHINGTON,
Publishers of the "American Farmer,"

At the *State Agricultural Society's Rooms*, 128 Baltimore-st. Over the "American Office," 5th door from North-st.

RAIL ROADS AND STEAMBOATS—THE CATTLE SHOW.

☞ The Corresponding Secretary of the Md. State Agricultural Society has received assurances from the several transportation companies, from Boston to Savannah, having agencies in this city, of their willingness to render every usual facility for visitors and stock, &c. coming to our State Show.

THE CATTLE SHOW.

The 9th Annual Exhibition of the MARYLAND STATE AGRICULTURAL SOCIETY will be held in this city on the 21st to 24th inst. at the beautiful grounds of the Society on North Charles street extended, which are now being renovated for the occasion by the officers of the Society. We have every indication of one of the most imposing shows ever held in this State, and most cordially invite every agriculturist of our own and the adjacent States to be with us on the occasion. It is expected, as Maryland will be largely represented at the show of the United States Society at Philadelphia, that much of the stock from distant States at that exhibition, particularly the prize animals, will also be with us at our show.

We hope every county in our own State will be fully represented, as well on the show grounds, as in the membership of the Society.

The annual meeting of the Society will be held at its hall on MONDAY EVENING, the 20th, (the day before the show), when the members, who may not have an earlier opportunity to obtain them, will be furnished with their tickets and badges. The Treasurer, will also be at his office on the grounds, during the Exhibition, ready to furnish tickets to members, on the payment of their dues.

As the Executive Committee have charge of all the details of the show, it is expected that the sessions of the Society will be taken up each evening, with discussions on subjects of interest to agriculture, by practical men. We hope those qualified to take part in this important duty, will be prepared for the occasion.

The gentlemen who have been selected as judges, are requested to be punctual in their attendance and announce themselves in person, or through some friend, to the Executive Committee the evening before the opening of the show, as all vacancies will then be filled.

Copies of the list of premiums, rules and regulations, &c will be furnished by the General Secretary, at the Hall of the Society in this city, where every other necessary information can be had.

Applications for stalls and pens will be received up to the 14th day of October, when a drawing will take place for the choice, under the direction of the Committee appointed at the meeting in June. All who may not apply prior to that time will be allotted stalls by the Marshal.

The following is the Programme adopted by the Executive Committee at its last meeting, for the exercises of the week, of which all persons interested, will take due notice, as the order will be rigidly observed:

PROGRAMME.

TUESDAY, OCTOBER 21st, FIRST DAY.

At 11 o'clock, A. M.—Examination in the Cattle Pens, of all Short Horn and Hereford Bulls, Cows, &c.

Exhibition of Heavy draught Horses, upon the Horse Track.

At 12 o'clock, M.—Examination in the Cattle Pens, of Native and Grade Cows, &c.

Exhibition of Blooded Horses upon the Horse Track.

At 1 o'clock, P. M.—Trials of Speed, upon the Horse Track.

At 2 o'clock, P. M.—Examination in the Cattle Pens, of all Ayrshire and Holstein Bulls, Cows, &c.

WEDNESDAY, OCTOBER 22d, SECOND DAY.

At 10 o'clock, A. M.—Examination in the Cattle Pens, of all Devon and Alderney Bulls, Cows, &c.

Exhibition of quick draught and Saddle Horses, upon the Horse Track.

At 12 o'clock, M.—Examination in the Cattle Pens, of all Imported Cattle.

Exhibition of Imported Horses and Jacks, upon the Horse Track.

At 1 o'clock, P. M.—Trial of Speed upon the Horse Track.

At 2 o'clock, P. M.—Examination in the Cattle Pens, of Working Oxen and Fat Cattle.

THURSDAY, OCTOBER 23d, THIRD DAY.

At 10 o'clock, A. M.—Examination of Mules and Jacks, upon the Horse Track.

At 12 o'clock, M.—Trial of Speed, upon the Horse Track.

FRIDAY, OCTOBER 24th, FOURTH DAY.

At 11 o'clock, A. M.—Trial of Speed, upon the Horse Track.

TRIALS OF SPEED, UPON THE HORSE TRACK.

TUESDAY, OCTOBER 21st, FIRST DAY.

Fifty dollars will be destributed at the descretion of the Judges.

Judges—Dr. John Hanson Thomas, William Gilmore and William S. Williams.

At 1 o'clock—Exhibition of Trotting Horses in Single Harness.

At 2 o'clock—Exhibition of Trotting Horses in Double Harness.

WEDNESDAY, OCTOBER 22d, SECOND DAY.

Fifty dollars will be distributed at the discretion of the Judges.

Judges—Col. John H. Sothoron, Charles Ridgely of Hampton, and Hon. Anthony Kennedy.

At 1 o'clock—Grand Cavalcade of all Horses and Colts upon exhibition.

THURSDAY, OCTOBER 23d, THIRD DAY.

Fifty dollars will be distributed at the discretion of the Judges.

Judges—Robert Gilmore, Alex. B. Gordon and J. Hall Pleasants.

At 12 o'clock—Exhibition of Trotting Horses, under the Saddle.

At 1 o'clock—Exhibition of Horses in Double Harness.

FRIDAY, OCTOBER 24th, FOURTH DAY.

Fifty dollars will be distributed at the discretion of the Judges.

Judges—Robert M. Denison, T. Harris Hodges and J. H. Duvall.

At 11 o'clock—Exhibition of Trotting Horses, in single Harness.

BREADSTUFFS—THE EUROPEAN MARKET.

During the past month, considerable fluctuation has been experienced in the grain market, all predicated upon the appearance of the weather in England, the day preceding the starting of each steamer. If the weather had a favorable appearance, the grain market at Mark Lane is agitated, and on the arrival of the news here, the prices are depressed; but as soon as the panic is over, the price again advances in a day or two, until another steamer arrives—and thus the market is continually fluctuating, without any real necessity for it, and no doubt in most cases, to facilitate the operations of speculators, both here and in England.

There is every reason to anticipate from the evidences presented from Europe, that large supplies of our breadstuffs will be required there the ensuing year. Let the harvest in England be ever so good, that country must obtain additional supplies from abroad, for she cannot produce a sufficiency for home consumption. A London editor, in speaking upon this subject, says:—"Experience shows that whether we have a good or bad harvest, we must have large supplies from abroad to insure moderate prices at home." The British consumer is now as much interested in the state of the crops on the banks of the Danube, or on those of the Mississippi, as he is in those of his native country. The appearance of the potato rot in Ireland and some of the districts in England, has caused a decided advance in corn, which, during the famine in Ireland, in 1847, was introduced with much success, and has opened a market for that grain, of which this country must enjoy the exclusive controul—but it is very evident that in large sections of this country, that cereal will be extremely short; throughout nearly the entire South, the crop is insufficient for home consumption, and the price must go up. A gentleman of the highest intelligence in North Carolina, in a letter received within the last week, assures us of "an entire failure of the Corn crop in many parts of this country—everywhere a very short one"—a result almost unknown before in that State,—and similar accounts are received from several sections of our own and the other Southern States. The deficiency in this crop must have an effect on the price of wheat also. In France the harvest has not been equal to what the government would wish to induce the belief of.

Under all the circumstances, we would advise the farmers to have their grain ready for market, so as at any time to avail of the opportunity which may present of obtaining remunerative prices—and as a general rule we deem it best for those in the tide water districts, to have their wheat in the market before the navigation closes, but not to hurry it in before then.

GUANO.

Early in the past month, the price of Peruvian Guano was advanced by the Agency here $5 per ton, and the retail price by dealers has ruled at about $62 per ton of 2240 lbs. This advance has been very advantageous to dealers and speculators, whose interests are particularly guarded by the Peruvian Agency here. We have reason to believe that the opportunity was afforded just before the rise, for operators to secure large quantities, probably sufficient for the present Fall's supply.

There is an impression abroad, that the Agency here had been, or would be removed to New York—so far from this being the case, the contrary is the fact—the agency which has been existing in New York for years has been dispensed with, as it was found, we suppose, not to pay—a large amount of guano had accumulated there, which was stored at a heavy expense, and with a very limited demand—this stock has been brought to this city, the Agency here having either failed to make contracts for freight early enough, (as we intimated some months since,) to meet this Fall's supply at this port, or designedly kept back supplies in order to enable them to work off their stock at New York and elesewhere; hence in selling here (where

nearly all the sales, we believe, are now made by the Peruvian government,) it has been stipulated that the larger portion of the stock shall be delivered at New York. We understand that no imports will be made into New York, except in ships that cannot come up to our wharves, or of those in the ports of Virginia—the heavy expense here of lighterage for such ships alone inducing them to be sent to New York

The demand for all kinds of guano has been quite brisk during the past month, notwithstanding the rise—the Philadelphia Guano Co. have been unable to supply the orders for the Colombian, which has been used very extensively, principally to incorporate with the Peruvian—the supply of Mexican is good, and the price has been reduced—it now sells at $20 to $24 for best guano, and lower rates for inferior qualities—it has also been used to mix with Peruvian. The price of the Colombian continues at $40 per long ton—African $35.

"THE THING WHICH IS, IT IS THAT WHICH HATH BEEN."

We have frequent notice in the journals, of heavy weights of animals, and large crops of corn, &c., per acre, which seemed to be looked upon as signs of progress and improvement in their several departments. In referring to past records, the intelligent reader will be often surprised to find how little advance has been made in the improvement of breeds of stock—methods of feeding—in manuring, cultivation, &c., of crops, within the thirty, or forty years past. Thanks to the Agricultural journals, the knowledge which was possessed in former days by very few comparatively, has been diffused extensively, and entered into much more general use, but real improvement in knowledge, either of the theory or practice of agriculture is much less than we are prone to suppose.

No animal has been the subject of more interest and attention than the Hog, and to illustrate what we say, we make a note of weights taken from the first volume of *American Farmer*, published in 1819, before any of the now fashionable improved breeds were known.

"Mr. Brigham, of Cambridgeport, Mass. has raised this year, four pigs of one litter, which were one year and one day old, when killed, and their weights were as follows:

1. 398 pounds.	3. 306 pounds.
2. 394 "	4. 318 "
	Total, - 1416 lbs."

"There were lately slaughtered in the town of Boston ten hogs or rather pigs, for they were but one year old the day they were slaughtered, which weighed as follows:

1. 394 pounds.	6. 369 pounds.
2. 392 "	7. 369 "
3. 391 "	8. 368 "
4. 390 "	9. 365 "
5. 369 "	10. 356 "

Total, *three thousand seven hundred and sixty three pounds.* Besides 195 pounds of rough fat, taken from the intestines. It is understood they were sold for $451.56."

This lot were a cross of the Byfield breed. They were taken from the sow at five weeks old, put into a pen and fed with swill, &c., and *washed occasionally*, so as to keep them constantly clean. "It seems that much depends on keeping them *clean, dry, and warm* in cool weather; and cool in hot weather—for his pen is under a shed, where they are always under the shade. This together with feeding them equally and frequently, so as constantly to give them as much, and no more, than they will eat, seems to be the great means of quick and fat growth." The only hard food they consumed, was toward the latter part of their feeding, when they had hard corn once, and wet meal three times a day.

The Editor remarking upon this lot of hogs, says that averaging more than one pound weight, for every day they lived, they must have weighed 150 pounds *at six months* old, and that this weight was quite equal to the average of Maryland hogs when slaughtered at sixteen months. We are very safe in saying that the average at this age, does not now exceed this weight. A Boston paper of the same year (1819) says, we are told that a farmer in one of the upper towns in New Hampshire has in one pen twenty pigs, which it is supposed when slaughtered will weigh 8,000 pounds, and that another neighboring farmer has a pen of twelve which are expected to weigh 6,000 pounds. Another large lot slaughtered in Boston were spoken as of great weight and fatness, and "for whiteness of flesh, smallness of bone, thinness of skin, and ears, and plumpness of body, could not be exceeded."

Mr. Amos Wood of Boston, on the 30th March, 1818, brought from Concord, Mass. to Boston, a sow which weighed on that day 596 pounds. She was weighed again on the 30th March, 1819, and weighed then 1106 pounds; having gained 510 pounds in 365 days, and was then thriving, perhaps more rapidly than ever.

In February, 1820, Mr. John Harbruger of Lancaster, Pa. brought two hogs to Baltimore, one eighteen, and the other fourteen months old, which weighed together 1,743 pounds. They were in excellent plight, and yet increasing in weight.

Cyrus Lathrop at Easton, Mass. killed a hog at twenty months old, which weighed 742 pounds. He gained in one year, six hundred and sixty-five pounds.

Mr. Daniel Gidley of Poughkeepsie, raised on his farm, in 1820, one hundred and two hogs, which when slaughtered and dressed, weighed 23,630 pounds.

These are a few instances from which it appears that in the improvement of the hog, at least, we have made little advance of late years.

GRAPE CULTURE.

We learn from the *Southern Cultivator*, that Mr. Charles Axt, of Crawfordville, Ga., has been very instrumental in awakening in that State an interest in the culture of the grape, and wine making. Mr. Axt has several flourishing vineyards,—one in Wilkes Co., Ga., another in Whitfield Co., Ga., and two in Montgomery and Autauga counties, Alabama. Those in Alabama are bearing finely in two years from the cutting. Mr. A. invites all who may feel an interest in the subject, to visit his vineyards, and witness the success of his culture.

Mr. Axt thinks the climate of the South unrivalled for the grape culture, and that with her cheap lands, and slave labor, good soils, &c., if the South will only enter upon and prosecute vigorously the culture of the grape and wine making, that in thirty or forty years she will control the wine markets, as she does now the cotton markets of the world.

He thinks that the South has great advantages over the Western States and Europe for the culture of the vine. In the latter country, he says, it is very fastidious in its choice of soil and exposure; thriving only upon warm, porous, deeply trenched and well drained hillsides facing the sun. The land there, suitable for grapes, is worth from $100 to $400 per acre. In the South, where they flourish upon almost any soil, it can be bought for from $3 to $10. In Europe and the West, the cost of preparing the ground by trenching, terracing, walling, &c., owing to the defects of climate and soil, is from $50 to $200 per acre, while in the more genial climate of the South, by the use of the sub-soil and deep turning plough, followed by the spade or shovel, the cost need not exceed $40 per acre.

At the West a good average for a vineyard, in full bearing, is from 300 to 400 gallons per acre, and it scarcely reaches this point before the sixth year from the cutting. Mr. Axt asserts that "in the South, we can easily get *one thousand* gallons of wine per acre the third year after planting the cuttings; and under favorable circumstances, from the fifth year, onwards, each acre will average from 2,000 to 2,500 gallons of pure unadulterated wine."

A fine, warm, sunny summer is indispensibly necessary to make a good crop of grapes and a finely flavored wine. In unfavorable seasons the wine is too *rough* and *sour* to drink in its *natural* state, and requires to have sugar added, which detracts from its value. The summer weather of the South being *always* favorable to the grape, full crops may be expected every year, and the bunches may hang on the vines till they are fully matured—an indispensible requisite to the making of good wine.

Either in an economical or moral point of view, the advantages of an extended culture of the grape for wine-making can hardly be over estimated. The immense cost at which foreign drinks are introduced for our use is bad enough, but when we know how they are adulterated and afford us poison too often, instead of wholesome and refreshing drinks, we may well look about us for a substitute. We do not doubt that a *pure* and *natural* wine may be made in all our Southern country, and more profitably than at the West, where Mr. Longworth and others have demonstrated the value of its production. There is no doubt it can be profitably made and furnished to the consumer at lower rates than almost the worst of the wretched drinks now sold. And we cannot doubt that where *pure wine* can be abundantly and cheaply obtained, it will surely take the place of the fiery alcoholic spirits which now so frequently drown men in perdition.

We heartily wish Mr. Axt all success in his patriotic efforts to diffuse the vine culture. We wish, moreover, that every farmer would plant at least a few good vines, and every farmer's wife would make a few good gallons of pure unadulterated wine. There is no mystery to deter any one from it, and it is one of those many luxuries which farmers may and should enjoy.

FATTENING SWINE.

If you have no hog-pens among the appointments of your farm, have some immediately put up, so that when it shall be time to put your hogs up to fatten, the pens may be ready for their reception. The pens should have a feeding and sleeping apartment, with a yard attached to each. In each pen there should be a *rubbing post*. The surface of each yard should be formed into a basin-like form, over which a bushel of plaster should be spread, and then covered several inches in depth with wood's mould, marsh mud, river or creek mud, the earth from headlands, or ditch or road scrapings, weeds, &c., all of which materials during the fattening season will be converted into good manure; for there are no better manufacturers of manure than hogs. Without entering into any detail of the constituent elements of hog manure, we would say, that it is considered, in the view of chemists, superior to that of the cow, and this estimate is borne out in practice by the closest agricultural observers. When theory and practice both arrive at the same conclusion, we may be sure that this opinion is very nearly founded in truth.

In filling the yard of a hog-pen with the substances named, every few inches of the matter as it is being placed in and spread on the yard, should be dusted over with *plaster*, or with pulverized charcoal, to prevent the escape of the ammonia. Occasionally stable and cow yard manure should be thrown over the surface and be treated to sprinklings of plaster or pulverized charcoal. To encourage the hogs to *root*, every few days grains

of corn should be distributed over the surface of the yards; in consuming and searching for the corn, the hogs root up and intimately mix all the substances together, and thereby assure an equality in the value of the compound—a matter of great consideration in such bodies. If you provide your hogs with the rough material named, each hog during the fattening season will make two loads of good compost manure. To show the value of the urine of the fattening hog, we will remark, that it is estimated by chemists that it is as rich in the elements of vegetable productions, as is that of human urine, and that in every pint of the latter there are the elements of a pint of wheat. If this be true, and we believe that it is, we would ask, is it not worth while for agriculturists to put themselves to the trouble of saving so fruitful a fertilizer as hog manure, solid as well as liquid? To this question there can can be but one rational answer, and that an affirmative one. There is no animal that voids more urine than the hog, and there is none voiding it of a richer or more fertilizing quality; indeed there is none so rich. Each 100 lbs. of hog urine will give 5.64 lbs. of *urea*, which is equal to so much *ammonia*, and certainly then, it is most worthy of being saved, and can be, to a very considerable extent, by the means pointed out by us in the arrangement of the yards of the fattening pens. Besides *urea*, the urine of the hog consists of albumen, a substance rich in carbon, nitrogen, hydrogen, oxygen, phosphorus and sulphur, in common salt, muriate of potash, gypsum, chalk and glauber salts, each and all of which substances are useful in the building up of vegetable products. Let us now turn from the liquid part of the manure of the hog to the *solid* portion. What do we learn of the latter? Why science and practice both combine to declare that it is as rich in all the elements of fertilization and vegetable production as that of man; and hence it results that substances so enriching, so eminently calculated to fertilize the soil and increase its products, should be economised and made to perform their rightful offices in the improvement of the land—in the nurture, elaboration and perfection of the seed committed to that earth.

Treatment of hogs when taken up.—All hogs when first taken up for fattening, should receive three or four doses of flour of sulphur, and as many of copperas, in doses of a table-spoon, at intervals of two days apart. These should be given them in messes of bran or meal. Such doses serve to cool the blood, strengthen the digestive organs, and remove those worms which sometimes attack the kidneys.

As to their food.—Their food for the first two or three weeks should be pumpkins, apples, roots and other vegetables, which would be the better of being cooked and mixed with bran, or meal of some kind; the latter being increased from day to day, gradually, so that when the hogs come to have corn or meal altogether, the change may not be injuriously felt by them.

Whether *corn* or *corn meal* be fed out to the hog, a great saving will be effected by having either cooked, and it is immaterial whether it be boiled or steamed. A saving may be effected by cooking of from 15 to 20 per cent.—by grinding into meal and cooking, of 30 per cent.

Materials for the hog-pen yard.—A trough should be kept in the yard, at all times supplied with *charcoal*, *wood ashes*, *rotten-wood*, and *coarse salt*. These substances keep the tone of the hogs' stomachs in order, encourage their appetites, promote digestion, and keep the animals in health.

Time of feeding.—It is all important that the hogs be regularly fed, at stated hours, three times a day, say morning early, at noon, and just before sun-down.

Of their sleeping apartments.—These should be supplied with fresh leaves or straw twice a week, so that by their comfortable bedding they may be induced to devote a considerable portion of their time to sleeping—sleep being a great promoter of fat.

Time of taking up hogs to fatten.—The precise time to take up hogs to fatten, can not be well stated: *the time* must depend upon the *supply* of *mast* in the *woods*; while that supply is amply sufficient to keep the hogs in a growing state—while they increase in size and fat, they can very safely be permitted to remain in the woods; the time for removal to the pens, then, is when the hogs, by their appearance, begin to show an insufficient supply of food.

NOTES BY THE WAY.

"I passed by his garden, I saw the wild briar,
The thorn and the thistle grow broader and higher."

It would seem that some of our chief highways in Maryland had been located to give the stranger the very best opportunity to "spy out the nakedness of the land." Passing along from Baltimore to Washington, or from the Annapolis Junction to the "Ancient City," "he that runs may read" the tale of poverty and barrenness. We do not believe that the natural quality of the soil makes this poverty a necessity, and it is gratifying to see that some spirited improvers have bought up a portion of these worn out lands of Anne Arundel county, near the Washington Railroad, and have, in a very short time, demonstrated the facility with which they may be improved. Along the Annapolis road too, the improvement in some sections is manifest. But large bodies of land, peculiarly fitted for the culture of the finer fruits and vegetables, and within an hour's time of the large markets of Baltimore and Washington, are lying waste and worthless. We commenced these remarks, however, merely to make a note of two

or three items of farm management which took our attention by the way.

The first was a tolerably fair clover field, from which a crop appeared to have been harvested, but within the limits of which was an acre or so of *blue thistle*, which seemed to have been left for the express purpose of maturing the seed. We are not aware of the market price of this kind of seed, but the proprietor will at any rate have the satisfaction of getting his own land thoroughly "set," and can spare a good deal to his neighbors. Cut green, the thistle would only have served for manure, and the crops for future seasons might have been shortened without a new supply of seed.

Another note we made was that of a very good crop of corn, which bore the marks of care and intelligence in the cultivation of it, with an outside fence to the field, which a respectable bull would scorn to put his horns to.

Still farther on, we met with an excellent and expensive fence, with only an apology for a crop of corn inside of it.

Again we passed a field where a crop of hay had been cured and put into cocks, and a herd of cattle had been turned in, who were amusing themselves by pushing the cocks over with their horns. About the middle of the day there came a sudden storm of rain, and as we passed again in the evening, the hay lay "*in statu quo ante bellum*," with a considerable surplusage of rain water added. This fine morning, we have no doubt our industrious friend is spreading out his damaged hay to dry, with the full intention of putting it into a stack as soon as possible, with a pen of logs about it.

Our reflections on these items were as follows: 1st. It does not not pay, *in our opinion*, to grow *blue thistles* for the seed—nevertheless, in a free country a man may grow *blue thistles*, if he will, but should not compel his neighbor to grow them against his will. 2d. A good crop of corn is worthy of a good fence. 3d. A good fence ought to have a crop inside worth being taken care of. 4th. Cattle should not be permitted to pitch cured hay about, except in *very* good weather.

VINEYARDS OF CINCINNATI.—The Editor of the *Western Farm Journal* says, that within a circuit of fifteen to twenty miles around Cincinnati there are at this time two thousand acres in grapes, chiefly of the Catawba variety. The crop this year is completely a failure, yet the business, notwithstanding a large outlay in the first cost of preparing ground, &c., is found on the whole *to pay* and pay handsomely. One of the most intelligent and systematic cultivators, who has kept account with his vineyard for nine years, during which period there have been several such failures as that of this year, *viz.*, about one third short of an average, informed him that the average of his yearly profits, on the nine years, would not be less than $300 per acre.

MONTGOMERY COUNTY AGRICULTURAL FAIR.

This exhibition took place at Rockville, on Thursday, the 11th Sept., and was attended we learn, by five or six thousand persons, from Maryland, District of Columbia, and Virginia. The show of stock, poultry, farm and garden products, housewifery and needle work, is said to have been quite large and respectable. Addresses were made by Richard J. Bowie, J. H. Bradley, A. B. Davis, G. W. P. Custis, and Geo. Peter, Esqs.

There is no society in Maryland, perhaps, that so well deserves the commendation of every friend of improvement as this Montgomery Society. Through a series of years it has held on its course, and seems to know no flagging, and its patriotic members vie with each other in the good cause of agricultural progress. No county of the State has felt so sensibly the effect of intelligent counsel and well directed enterprise.

Some of the best essays upon agriculture which we have, have emanated from Committees of this Society, and these reports, with the able annual addresses, and essays from individual members, brought together, would form a collection of scientific and practical instruction in agriculture, not often found in the same compass.

The natural consequence of such an influence upon an intelligent and enterprising people, has produced, through the liberal use of fertilizers, and better implements of culture, a degree of improvement almost unparalleled. We know these effects more from hearsay than of our own knowledge. It was our misfortune on the occasion of this last Fair, to have been debarred of the pleasure we had anticipated of meeting the farmers of Montgomery, and bearing witness to some at least, of their many good works.

Will some of our friends there take a suggestion from us. One of the best works that can now be done for agriculture is to make men believe that money judiciously used in the improvement of land, is profitably invested. We want our young men, the most intelligent and enterprising of whom are running off to other pursuits, to be convinced that they can profitably spend their time and their talent in this. We want intelligent capitalists, who have money to invest, to have it demonstrated that it can be well invested in the purchase and improvement of Maryland lands, and we wish to see the timid farmer, who fears to invest a little money in the improvement of his land, satisfied that he may safely do so. The farmers of Montgomery, many of them we know can demonstrate, in their experience of the ten past years, that this may be done. Will they give the ignorant and the doubting the benefit of their experience through the pages of the *American Farmer?*

MR. MECHI AT TIPTREE.

Through the favor of Messrs. Wm. F. Murdock & Co., we have the Edinburg *Scotsman* of July 23d, containing an account of the annual "gathering" at Tiptree—the farm of Mr. Mechi—celebrated for his "high farming" practice. The gathering was attended by some 500 or 600 gentlemen, who were much interested in examining the improvements. This gentleman's practice is designed to illustrate the profit of a liberal expenditure in the improvement of land, and he has been eminently successful. Thorough draining, irrigation, liquid manuring by means of pipes laid in every direction through his land, free expenditure for manures, had combined to raise a farm, the soil of the main portion of which, he describes as "resembling bird-lime in winter, and cast-iron in summer," to a condition of extraordinary fertility: producing luxuriant crops, and feeding an almost incredible number of stock —the farm containing but 270 acres of land.

We know how much the British farmer exceeds us ordinarily in the amount of capital he spends in the cultivation of his land—$30, $40 and $50 per acre of arable land, being considered essential for necessary cultivation and manuring. The large sums which tenants are required to have before they can take possession of a farm surprise us; and it is well understood that a tenant's ability to pay his rent is proportioned to his means of manuring and cultivating.

Yet Mr. Mechi, arguing from his many years intelligent experience, says, that the farmers of England to farm profitably must have "more money or less land." The general condition of British Agriculture, he says, is most imperfect and unsatisfactory, and it was want of power, labor, capital and intelligence, that prevented the land in the country being cultivated like a garden. He who did the least to his land, and purchased the smallest quantity of artificial food and manures, was he who produced his corn at the dearest price, and was in no condition to compete with successful men who adopted the opposite principle. The land of England was poorer than it ought to be, because they were always taking from the land what they did not put back. The present system he foresaw would be changed.—There would, in fifty years, be twice as many farms as now, and the same amount of capital would be spent on half the number of acres. Men who had not money to lay out upon their land, would borrow money for the purpose, and find it a profitable operation. For the present, they chose rather to have an area of acres that were poor and proud acres, than to lay out sufficient money to improve them. This was the reason that England failed to produce abundant grain for her own consumption.

"Poor and proud acres," according to Mr. Mechi, is the fault of English Agriculture, how much more of American. A large farm poorly tilled; great tracts of land yielding nothing. How can agriculture be any other than the poorest, least inviting and meanest pursuit, when men make it impossible to cultivate properly by exhausting all their capital in extending their boundaries—when they oblige themselves to work on year by year, wearing out their lives in hopeless toil, without the necessary means to work with—making for themselves the worst tyranny which Pharaoh could invent for the children of Israel, when no straw was given to them, and yet they were commanded to make brick.

Those moral precepts which are designed to instruct us first in the highest lessons of wisdom, are often fruitful in teachings which would guide us well in our every day affairs. The saying of the wise king that "the eyes of the fool are in the ends of the earth," was intended no doubt as the reproof of that man's folly who, instead of looking into the workings of his own heart and superintending its operations, busies himself about the moral character of his neighbor, and laments and condemns delinquencies which it is not his business to correct; or of his, who neglecting his own family, or the poor of his immediate neighborhood, goes to the ends of the earth for objects of care or sympathy. How many modern charities and philanthropies does it not reprove? But it has more than a moral application. Does it not rebuke equally the folly which is so concerned to extend its boundaries, or so averse to draw them in that it condemns to imperfect and insufficient culture, or to hopeless barrenness, perhaps all inside of them? We have thought sometimes that King Solomon having had, with his other experiences of life, a very considerable farming experience, expressed this proverb in agricultural *parlance*, and that the translators not being farmers, had failed to render it accurately. A very small change from the present version, would make it, "The eyes of the fool are on the boundaries of his land." We know how sailors speak in sailor phrase, and it is not hard to conceive that a sage farmer in uttering a great moral lesson should clothe it in language which, while it illustrates a thousand follies, should stand upon the record in eternal reproof of this grand patent folly of land-holders.

But be this as it may, the lesson is a plain one still. The wise man is he who keeps his eyes at home, scrutinizing himself and that which most concerns him. As a farmer, his business is to make his lands produce to the utmost, provided he does not waste or destroy the means of production. If he uses his eyes he will not fail to see that sowing plentifully, he shall reap plentifully—and that this is as true of money as of seed. A niggardly policy will starve his land and himself together; a generous expenditure will make both rich.

SCIENCE AND ART.

Agriculture being a science as well as an art, requires, says the *Valley Farmer*, both an "educated head and an educated hand." This is very true. The educated hand must have the direction of the educated head, or skilled as it may be in practice, it will lose half its labor for not working in the right direction. So the educated head must have the help of the practised hand, or its wise devices will fail of a proper execution.

In the old story, a blind man and a cripple were in danger of being benighted in a wilderness from which they had no means of escape. The blind man had very good limbs, which might have brought him out, but no eyes to show him the way. The lame man had excellent eyes, but his legs refused to carry him. They were at a stand still therefore, till the thought struck them they might help one another. The blind man took the lame man upon his shoulders, and the eyes of the latter and the legs of the former worked happily together to bring them out of their trouble.

Let agricultural science come down from the stilts, and seek the aid of a skilful practice in working out problems, and let hard-handed, hard-headed practice acknowledge his blindness, and take upon his broad shoulders keen sighted science to guide him, and the result will be a wholesome progress yet unheard of in agriculture. The head and the hand must both be educated.

ROOTS OF PLANTS GROW IN COLD WEATHER.

Cultivators when they know, do not sufficiently bear in mind the fact which physiological writers teach, that the roots of plants grow when that portion of the plant above the ground is apparently dormant. Lindley states that the roots of trees grow in winter, except when actually encased in frozen soil, and argues from the fact, that it is better to plant trees in fall and winter than in spring, because the extra supply of roots, before the period of spring growth, renders the plant better able to meet the demands for moisture the foliage makes upon it.

Tobacco planters recognise the fact of a growth of roots which is out of proportion to the growth of leaf. They sow their seed very early, because they know by experience that at planting time, the early sown will have better roots, though they may have no more size of leaf. The cool weather which checks the growth of the plant, does not interfere with the extension of its roots. And small yellow plants with large roots are "tougher" as it is said, and "stand" better after transplanting than green, vigorous, leafy plants, which have grown up rapidly from late sown seed, but have little root.

The same fact is observed in the corn plant. Cool, unfavorable weather which allows the plant to make very little progress for some weeks, does not hinder the growth of the root. The roots are enlarging and extending, and when the season becomes favorable for growth, it is better supplied with food and moisture than the late planted, and makes a more vigorous plant, and bears better, other things being equal.

ROUGH MATERIALS FOR MANURE.

Besides covering your cattle yards, pig-pens, &c., with rough materials, you should gather all the rough materials on your farm or plantation and form them into composts with your stable manure, the offals of your kitchen, as pot-liquor, soapsuds, and of your homestead, as urine, &c. Marsh and river mud, creek mud, the scrapings of roads and ditches, wood's mould, leaves, pine shatters, weeds of every description, corn stalks cut into short pieces, refuse of the garden, &c., if formed into compost with your stable manure, privy manure, chicken and other dung, during this fall and winter, will, by spring, make you a quantity of good manure that will astonish you. All the substances that we have enumerated, contain the elements of *mould*, which, permit us to assure you, is to the fertility of your soil--to the production of your crops—just as essential, as blood is to the human system,—both are alike the life-spring and source of vitality. Without there be *mould* in the soil, or something identical in constitution, no soil can be fertile, notwithstanding there may be present in it all the inorganic elements so necessary to a good soil. *Without the nutritive principle be also present, infertility, as a necessary consequence, must follow as the result. Mould*, or animal and vegetable matters in a state of decay, are as indispensible in the constitution of a fertile soil, as flesh and other materials are in the concocting of a good pot of soup.

Upon this subject, Professor Dana, whose teachings all may follow, speaks thus:

"Mould is truly manure. If the mould of soil were separated from the earthy portions of soil, it would deprive that soil of the power of growing crops. Here, then, we come to a broad distinction between the soil and manure. The *soil* is the earth on which plants grow,—the *mould is the manure* of that soil. The soil is the earthy—the mould, that is, the carbon and salts, together with the elements of water, are the vegetable part of arable land."

We here affirm, that the making and preserving of dung heaps, should be the first object—the first duty—of every culturist, as without putrescent manures of some kind or other, land cannot be preserved in a state of profitable fertility.

Nicholas Longworth.—The pioneer in the cultivation of the vine at Cincinnati—and still though not far from being an octogenarian, one of its most ambitious and extensive planters, has at this time 140 acres of bearing Catawbas, yielding at the moderate estimate of $200 per acre, $28,000 per annum.

SOUTH CAROLINA AGRICULTURAL SOCIETY.

The State Agricultural Society of South Carolina holds its first Annual Fair in Columbia, on the 11th, 12th, 13th, and 14th of November next. We learn from Col. Summer, the Editor of the S. C. Agriculturist, who is also the Treasurer and Secretary of the Society, and who gave us the pleasure recently, of a brief though most agreeable visit, that the society is commencing its operations with a most favorable prospect of success. It has a handsome appropriation from the State, a large number of life members at twenty five dollars each; the City of Columbia has contributed very liberal aid, and the preparations for the Fair are on a very ample and complete scale. They offer a premium list, amounting to four thousand dollars.

We do not doubt that our machinists and implement makers would find it to their advantage to exhibit at this Fair. It will excite, we are sure a spirit of improvement and an inquiry for better implements of all sorts, which will reward those who have the enterprise to put themselves in the way of profiting by it.

THE SOUTHERN PLANTER, our cotemporary at Richmond, pays us the compliment of transferring to its columns from a late number of our paper, (though without credit,) an editorial headed "Free Acid in Soils." We are glad to see our heretical opinions on this subject commending themselves in that direction. It will be remembered with what energy and determination it was attempted through the pages of *the Planter* (not by the Editor however,) to uphold the very commonly received though erroneous theory on this subject, when some twelve months since we attempted to controvert it. We had no doubt whatever that the matter would be put right by the observation of intelligent practical men, when the subject was brought distinctly to their notice, and this is one, perhaps, among many other signs we have had, that we were not mistaken.

SOUTH CAROLINA AGRICULTURIST.—We have neglected, we think, though very unintentionally, to notice the re-appearance in May last of *the South Carolina Agriculturist*, under the auspices of the Agricultural Society of South Carolina, who have put it in charge of Col. A. G. Summer as Editor. It is published at Columbia, monthly, at $1 per annum. We have no doubt, that the *Agriculturist* will prove to be one of the ablest and best journals of its kind, and hope our Southern friends will give it ample support.

We have received an excellent communication from "E." descriptive of his hog-pen, and plan of making manure, which we regret having received too late for this No. We wish our correspondent had accompanied it with a drawing of his buildings.

ALDERNEY BUTTER.

We have received from Wm. C. Wilson, Esq., a specimen of butter, made from the cream of his Alderney cows. It exhibits the peculiar richness and fine flavour for which the Alderney butter has been so long famous, and these qualities are enhanced by the attractive manner in which the butter is put up. Mr. Wilson has one cow of this breed which yields twelve pounds per week of this fine butter—and another whose milk yields 25 per cent of cream. His herd is a very superior one, and he is breeding them with great care, for the purpose of bringing their average yield of butter to a high point.

The Alderny cow under judicious breeding, while she has not lost in any degree her ancient characteristics, has wonderfully improved of late years in size, form and general appearance. Mr. Colman, it will be remembered, stated that the handsomest cow he saw in England was of this breed. And those who have seen the cows of Messrs. Wilson, Glenn and M'Henry, exhibited on our Show grounds, will not suspect him of exaggeration.

The Seaboard Agricultural Society of Virginia and North Carolina, will hold its Second Annual Exhibition at Norfolk, Va., on the 11th to 14th Nov., and have offered a very handsome list of premiums to competitors, and a cordial welcome is tendered to all who may attend the Show. The list can be seen at our office, and we refer to their advertisement on another page. We hope that such of our breeders of fine stock as can make it suit, will be exhibitors at this Show, and our manufacturers of implements and machinery will no doubt find it to their interest to be present. A most liberal, and rich custom is offered at this point for every thing calculated to improve agriculture. ☞We expect to be present at this exhibition, and will have an opportunity of seeing many of the subscribers to our journal, and the occasion can be embraced by those in that quarter to hand us their dues, if any remain unpaid, and it will give us pleasure to receive the names of such new subscribers as may offer.

A NEW PLOW.—We have been shown the model of a new Plow, invented by G. W. Zeigler, of Tiffin, Ohio, which will be exhibited at our coming show, and is worthy, perhaps, of a particular notice. The novelty of this plow is in the peculiar construction of an operating Coulter or Shear-point, which is operated upon by a third handle, placed between the handles of an ordinary plow, and by moving to the right gives the plow a deep furrow, and to the left a shallow furrow, as the plowman may desire, when at work.

☞ We have received copies of several new books, which will be noticed hereafter more particularly.

MARYLAND STATE AGRICULTURAL SOC'TY.

Proceedings of the Executive Committee.

BALTIMORE, Sept. 2d, 1856.

The Committee met pursuant to the Constitution. Present—Dr. S. P. Smith, N. B. Worthington, Jas. N. Goldsborough, Jno. Merryman, Frank Cooke, Ramsay M'Henry, and J. Howard M'Henry.

In the absence of the President, Dr. S. P. Smith, Vice President for Alleghany County, was called to the Chair.

Some inaccuracies having been discovered in the rules for the exhibition, as printed, they were brought up for re-consideration, and the 5th rule was amended by adding at the end thereof, the words "unless specially exempted." In the 19th rule, all after the word "such," in second line, was stricken out, and the rule as amended, reads as follows: —"19th. Imported animals can compete only for the premiums offered for such." In 20th rule 1st line, add the word "*not*" so as to read, "any animal *not* born within the jurisdiction of the United States, shall be considered as imported."

Henry C. Wilson was appointed on the Committee on Poultry; and R. M'Henry on Bacon Hams, in place of Messrs. Chauncey Brooks and Frank Sullivan, who declined serving in consequence of other engagements.

On motion of Mr. Merryman, a Committee was ordered to be appointed to arrange a programme of the proceedings for each day, on the show grounds.

Committee—Messrs. Merryman, Worthington and J. Howard M'Henry.

Mr. Worthington moved that a delegation of five be appointed by the Chair, to attend the several State Agricultural Exhibitions, convenient to our State, to be held this Fall; which was concurred in, and the following delegates were appointed accordingly, viz:

United States Agricultural Society, at Philadelphia.—Chas. B. Calvert, R. M'Henry, Jas. N. Goldsborough, W. W. W. Bowie, and Ch. Ridgely, of H.

Pennsylvania State Agricultural Society, at Pittsburg.—Col. A. Kimmell, J. H. M'Henry, M. T. Goldsborough, J. R. Emory. [On motion of Mr. Merryman, Dr. S. P. Smith was appointed Chairman of this Delegation.]

New York, at Watertown.—Jas. T. Earle, Wm. C. Wilson, Hy. N. Merryman, Thos. Hughlett, Jno. Merryman.

Virginia, at Richmond.—H. G. S. Key, N. B. Worthington, Jas. N. Goldsborough, John Q. Hewlett, Wm. H. Jones.

Union Society of Virginia and North Carolina, at Petersburg, Va.—Wm. D. Bowie, G. M. Eldridge, Jno. C. Walsh, Dr. Geo. R. Dennis, and Jos. H. Bradley.

North Carolina, at Raleigh.—Henry Carroll, Oden Bowie, Dr. Kennard, W. T. Goldsborough, and O. Horsey.

Delaware, at Wilmington.—Sam'l. Sands, Dr. J. O. Wharton, G. M. Eldridge, Jno. C. Walsh, and Rev. Mr. McIntyre.

On motion of Mr. Goldsborough, a Committee of three was appointed to contract for the hay, straw and grain for the Exhibition. Committee—Messrs. Earle, Worthington and Cooke.

The resignation of the Marshal, tendered at the last meeting, was withdrawn.

Mr. W. W. Glenn, to whom had been delegated the duty of procuring a suitable person, to take charge of the Show Grounds, and to keep the same in order, made a verbal report thereon, which was accepted.

The Committee then adjourned.

SEPTEMBER 16, 1856.

The Committee met pursuant to a special call from the President, when the following proceedings were had:

Ordered, that the President and Marshal be authorised to employ gate-keepers, in their discretion, at a price not to exceed $5 per diem.

Ordered, that a premium of $30 be offered for a Stallion of all work, who shall exhibit not less than four of his get, from a foal, to an age not exceeding 6 years.

On motion of Mr. Merryman, it was ordered, that so much of the premium list as refers to 1st and 2d premiums in the several classes of Horses, for Colts 1 year old, be stricken out, and the same premiums be offered for all colts under 2 years old.

Ordered, that a 1st, 2d and 3d premium of $30, $15, and $10, be offered for each class of Cattle, Sheep, Swine and Horses, imported.

Ordered, that a premium of $10 be offered for the best lot of fat Hogs, not less than five.

Ordered, that a Committee be appointed to wait on and receive delegates from other societies, and furnish them with badges and tickets. Committee—Dr. S. P. Smith, John C. Walsh, and O. Horsey.

Ordered, that the rule regarding bread be changed, so that no bread be entered after Tuesday, at 12 o'clock.

Ordered, that the subscription list for the City of Baltimore be placed in the hands of the Treasurer, with authority to make such terms with the subscribers as he may deem best.

Mr. Merryman, from the Committee on the order of proceedings for the several days of the show, made a report, which was accepted. [The report will be found on another page.]

Ordered that the Corresponding Secretary be requested to correspond with the several railroad and steamboat companies, relative to round trip tickets for passengers, and the usual facilities for bringing stock and machinery to the Exhibition.

The Committee then adjourned.

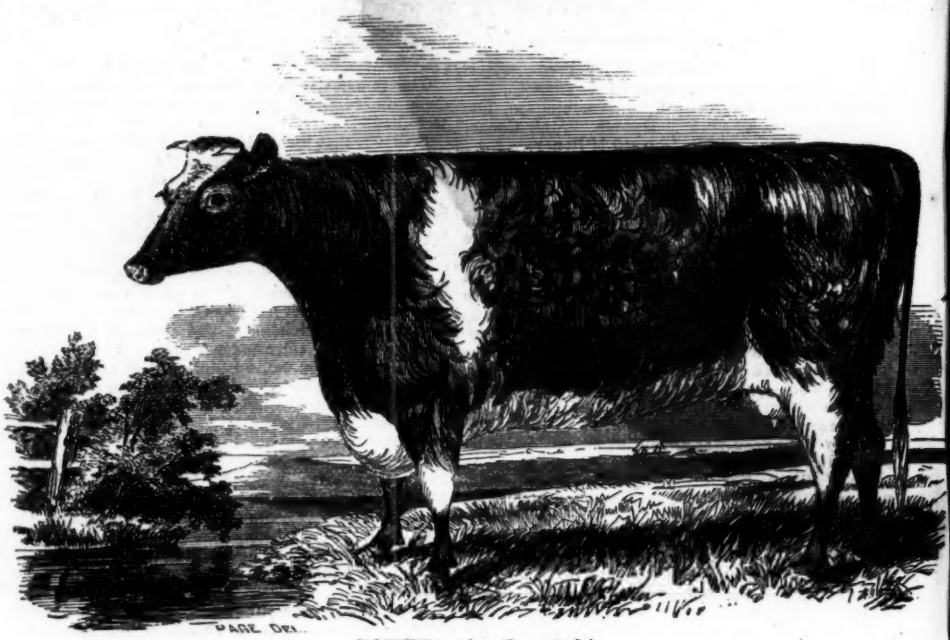
SAM'L. SANDS, Secretary.

FROM SHENANDOAH CO., VA., Sept. 13th.

To the Editors of the American Farmer.

The drought still continues. The corn is just drying up; there will not be much over a half crop through here. Seeding has commenced, but I don't know how the grain can come up unless we have rain, and there is not any prospect for that from appearances. The waters are very low, so much so that it is difficult to get any wheat ground for market. I do not think there was an average crop raised.

THE INVENTOR—Is a monthly publication just entering on its second volume at New York, by Low, Haskell & Co., at $1 per annum, in advance. It is devoted to the development of inventive genius in Mechanics, Agriculture, the Arts, and to the interests of the industrial pursuits generally; is printed on fine paper, in clear type, and illustrated with beautifully executed engravings. It is a highly useful publication, we have no doubt, to all engaged in such pursuits, and is such a work as should be put into the hands of every boy, especially who shows any mechanical bent.



ROWENA 3d. (Imported.)

Roan; the property of T. P. Remington, Red Leaf, near Philadelphia; calved February, 1851; got by Sir Walter 2d (E. H. B., 10,834); out of Rowena, by a son of Noble (4578); Rowena, by His Royal Highness (4039); Ruth, by Belvidere 4th (3129); Polly Hopkins, by Adolphus (1611); Primrose, by Colonel (3425); by Alba (726); by Symmetry (641); by Marquis (1196); by son of Favorite (256). P. 568, W. C. Coates' Herd Book.

The son of Noble was bred by Mr. Rowe, of Tolesby Hall, Stockton on Tees, and sold to Sir Robert Piggot (or Piquott), for 100 guineas. Premium, the dam of this bull, was a splendid cow. (See Herd Book, vol. 6, page 513.) Was a winner of many prizes. (See the Rev. H. Noel Hill's letter, of June 21, 1855.) Owing to Mr. Rowe's death, he says, the son of Noble was not entered in the Herd Book, but will have it done.

BREEDING OF STOCK.

[*From "The Rural Cyclopædia, or a General Dictionary of Agriculture, and of the Arts, Sciences, instruments, and practice, necessary to the Farmer, Stockfarmer, Gardener," &c., Edinburg*, 1854."]

[CONTINUED FROM PAGE 71.]

BREEDING IN-AND-IN.

"The system of breeding within near degrees of consanguinity, or, in farmers' language, of breeding in-and-in, so as to perpetuate a stock of sheep or cattle solely from its own bulls and rams, has been the topic of much discussion, and was long the subject of divided and unsettled opinion. The degrees of consanguinity vary according to the size and circumstances of different flocks; but may, in a general view be regarded as strictly parallel to those which prohibit marriage among the human species. The celebrated improver, Bakewell, after bringing his Leicester sheep and his long horn cattle to perfection, always bred from his own stock, and thorougly succeeded in preserving it from every appearance of degeneracy. Mr. Mason, of Chilton, successfully pursued for a time, the same course; other distinguished breeders have also, with various degrees of success, and for periods of various length, pursued it; a considerable number of breeders of the present day, particularly in England, still practice it, and regard it as the best; and several naturalists have appealed for the vindication of it, to facts in the economy of wild animals, and especially to the instance of the exceedingly prolonged consanguineous propagation of wild cattle of Chillingham Park. 'Mr. Bakewell,' says Mr. Culley, 'has not had a cross from any other breed than his own for upwards of twenty years; his best stock has been bred by the nearest affinities; yet they have not decreased in size, neither are they less hardy, or more liable to disorders; but on the contrary, have kept on a progressive state of improvement. But one of the most conclusive arguments that crossing with different stock is not necessary to secure size, hardiness, &c., is the breed of wild cattle in Chillingham Park, in the county of Northumberland. It is well known that these cattle have been confined in this park for several hundred years, without any intermixture, and are perhaps the purest breed of cattle of any in the kingdom; and though bred from the nearest affinities in every possible degree, yet we find them exceedingly hardy, healthy, and well formed, and their size, as well as color and many other particulars and peculiarities, the same as they were five hundred years ago." Mr. Napier quotes this passage, and appears to concur in it; and Mr. Hayward argues at much length, on a diversity of grounds, and in formal opposition to Sir John Sinclair, in support of the doctrine which it inculcates. Yet the true law of either improv-

ing or undeteriorating propagation, so far as we can deduce it from a vast mass of conflicting observations, is that consanguineousness of breeding, viewed apart, from other controlling or modifying circumstances, acts indifferently in the wild state of animals, and has a deteriorating tendency in the exact ratio of domestication. Mr. Bakewell, by a choice selection of individuals, improved his breeds up to the highest possible pitch, which became identical with the utmost possible degree of domestication; and he afterwards preserved his flocks from degenerating, only by careful attentions to the utmost attainable proprieties of pairing, and especially by a constant and costly provision of the fittest climate, the amplest shelter, and the richest food. But had he either permitted his improved breeds promiscuous intercourse, or allowed them to live under the ordinary conditions of common pasturage on a common farm, he would propably have witnessed a deterioration almost as rapid as the previous improvement. His breeds, too, were but newly formed,—they, under his own management, came for the first time into the possession of the characteristic properties which constituted them varieties of their species; and they, therefore, in all or any of their tendencies to degeneracy, were no more parallel to the long established good breeds of the present day, than a hybrid plant of the first generation is parallel to a hybrid of the fourth or sixth generation. But the wild cattle of Chillingham Park are almost contrasts rather than parallels; for they have no properties whatever of 'a breed,'—no qualities of a mere 'variety,'—'no points' whatever of the very numerous and diversified class which characterise the countless breeds of domestic animals, and distinguish them from the untamed brutes of the forest; and, of course, they could not degenerate,—they could not lose or deteriorate properties which they did not possess. The acquisition of such properties as constitute a changeable variety is inseperable from domestication; the production of many and diversified groups of them is what constitutes the numerousness of the varieties of any species of domestic animals; the segregating of a group of good ones, to the exclusion of the bad, is what constitutes the art of breeding; and hence, the very proportion to which high breeding is carried, becomes, at the same time, both the proportion of domestication, and the proportion of liability to deterioration from breeding in-and-in."

[To be Continued.]

Cotton Picker.—An arrangement intended to facilitate the picking of cotton has recently been patented by Mr. G. A. Trowe, of Cleveland, Ohio. The mechanism consists essentially of a tube, provided with a gearing and endless revolving chain, the whole weighing less than six pounds. It is suspended from the right side of the person by a strap passing over the shoulder, and is kept in motion by means of a lever or crank operated by the hand or fingers. By presenting the tubular point to the cotton ball, it is immediately seized by the chain and conveyed to the opposite end, where it is freed by means of a stripper, and deposited in a bag suspended at the bottom. The bag is rapidly filled and emptied. This improvement enables one field hand to pick more cotton than five to eight hands by the old method.

AN IMPROVED SYSTEM FOR A COTTON PLANTATION.

"Our system then is to divide the plantation into three parts, a third for cotton, a third for corn, and the remaining third for oats, wheat, rye or barley and potatoes. As soon as the wheat, oats and rye are harvested, sow broadcast upon the stubble, half bushel of peas per acre, plough all in immediately, and in the Fall just before frost, bury under with a two horse plow, vines and peas. The second year put cotton upon this land, corn where the cotton grew the first, and grain where the corn was. The third year, succeed the small grain again with cotton, the cotton with corn, and the corn again with small grain."

This extract is taken from an article furnished by a correspondent of the South Carolina Agriculturist to that journal, and is designed as an *improved* plan for the cultivation of a cotton plantation. It seems to be recognised as such, judging by the comments of an intelligent writer in a late number of that journal, and by its being copied into other Southern journals.

We took occasion not long since to notice a rotation for a grain farm, which we learned from another esteemed cotemporary in that State, was a common one, viz: "corn one year, and small grain the next," alternating continually, and the grain field closely pastured after harvest. We are not sufficiently familiar with the usual rotation for the cotton plantation, to understand what this new system is an improvement upon, and can hardly conceive or imagine one so bad, that this may be called better.

First comes the crop of cotton, which if the stalk and seed are all returned to the soil, might not be supposed to be a very exhausting one, were it not that the necessary cultivation keeps the surface uncovered and unprotected, and liable to be wasted by washings. Then immediately follows the corn crop, which to all these disadvantages adds that of a large consumption of plant food, to be carried off the field, and third, an exhausting small grain or potato crop. If John Taylor thought the three field system of Virginia "execrable," which took only the corn and the grain, and gave all the remainder of the time to recruit, what would he have said of this, which takes three exhausting crops in the same time. The only redeeming trait of the rotation, is the pea crop. But even for this, after having produced one crop already, the ground is to be exposed again in midsummer by another ploughing, and then in the Fall to be ploughed again to turn under the pea vine. Giving it literally no rest from the plough, beyond the time necessary for the growth of the crop. Besides the frequent surface cultivation for the cotton and corn, it has five regular ploughings in the three years. And this management is talked over quietly by some of our friends, and accepted for what it professes to be, an *improved system of cultivation*. "It is thorough cultivation" with a vengeance, we think.

PEA FALLOW.

The following details, we have read with interest, and they will no doubt be equally interesting to our readers. They are from the pen of E. R. Turnbull, Esq., of Lawrenceville, Va., and are copied from the Petersburg *Farmer*:

I was induced four or five years ago by my brother, William Turnbull of Dinwiddie, to sow wheat on the same land every year, and use the pea follow. I followed his directions, and the result has more than met my expectations.

As soon as convenient after the wheat is cut, plow as deep as possible with a two horse plow, sow the peas and harrow them in. It is best not to sow them later than 20th July, but earlier if possible. When the pod begins to form on the vines, they are turned in, and about the 1st October the wheat is sowed. Before sowing the wheat I run the large drag over the land to level it, put the wheat in with the 7 tooth harrow, drag again and sometimes roll.

I plow deep for three reasons—ours are red stiff lands; 1st. To increase the depth of mould and prevent washing. 2d. To destroy the weeds, &c., which usually grow after wheat. 3d. However dry it may be when the time arrives for the peas to be turned in, if the land is plowed deep at first, the fallowing can be done.

I sow two bushels of peas to the acre. I want them thick to shade the land as soon as possible, and to prevent the vines from running, so that they can be easily and completely turned. The fallowing is commenced as soon as the pod begins to form, in order that the work may be finished before the pea matures—believing that if the pea is allowed to mature, injury is done to the land; and besides, I prefer early fallowing because more time is given for the mould to form on the top of the land, and the vines will be more decayed before the wheat is seeded.

I sow wheat early to avoid rust and chinch bug.

The land upon which I commenced the pea fallow was very poor. When the wheat was first seeded I applied about 200 lbs. guano per acre.—This made a tolerably good crop, and also produced a good cover of pea vines. The peas were fallowed, and when the wheat was sowed again I used 200 lbs. guano. The crop has increased every year. Last year I applied only 100 lbs. guano, and the crop this year is better than it ever has been—not being less than 20 bushels per acre. During the four years I have applied as a top dressing on the wheat, between 10 and 20 bushels ashes per acre on part of the lot. I have always selected my seed wheat from the land on which the peas were sowed, as it is entirely free from all impurities.

I am satisfied that with the pea fallow and a small application of ashes, wheat can be made, and profitably made, on the same land every year, and the land greatly improved.

I regret very much that I cannot be more accurate in my statements. Like farmers generally, I have been very careless.

Some object to the pea fallow on account of expense and trouble—expense in buying peas and trouble of plowing in hot weather. Farmers can make their own peas. It is almost impossible to gather them in large quantities with the hand, but the vines can be cut and housed or stacked, and the peas when dry beat out. By the way, can't some inventive genius make us a cheap machine to gather them?

Wheat cannot be raised to any extent without early fallowing. I consider it much easier to plow the land after the wheat is taken off, than to fallow a clover lot or to turn in a coat of weeds.

I have always bought my peas, and think that the increase in the crop of wheat, the great improvement of the land, and the labor saved in hauling by always having the wheat convenient to the granary, afford me a handsome profit for the outlay and trouble. Our lands generally are too poor to produce clover. The pea fallow is, in my humble opinion, our only remedy. I am an advocate for the prudent use of guano It will not do for any length of time unaided. In order to derive any permanent benefit from it, my experience is that the use of it must be followed by the application of some putrescent manure. It costs too much. It has caused farmers to neglect the taking care of home manure. The extravagant use of it and the late sowing of wheat have done the farmers serious damage. I have been endeavoring for the last two or three years to use it as little as possible, and make the pea and home manures supply its place.

I have told all I know about the pea fallow. If what I have said induces any farmer to use it, so that two blades of grass will be produced where one grew before, I will be compensated fully for my trouble.

TULL ON MANURES.

We have been pleased to see of late, besides the articles in our journal upon the author of Horse Hoe Husbandry, numerous notices in other agricultural periodicals of him and his teachings. Our friend who defended him so zealously some time ago, against what he conceived to be an injurious charge, in writing upon another subject, says, with reference to Tull on manuring:—

"Let me suggest to you, that he did not consider manure wholly innutritious for plants, but considered that the residual earthy matters after decay, what we call mineral portions, are actual food of plants, just as we do. Nor do we consider manure of itself, food for plants; but that the nitrogen in it unites with the hydrogen of water, and thus becomes manure, which is probably, yea, doubtless, an advance upon him. Nor do we consider the carbon of manure a material food for plants, of itself,—9-10, rather 99-100 comes from the atmosphere, but by combining with oxygen, and then uniting with water, it renders minerals *soluble*, otherwise insoluble, in the earth—and this is what Tull means by *pulverising*. Thus much, in brief, as to his theory. But many persons in his time verily believed that he hauled his manure to the river and threw it away; and this belief is so far perpetuated among us, that many believe to this day that he rejected, discarded the use of manure *in toto*, as useless! nay injurious!! nay pernicious!!! Now, such was not the fact. May I ask you then, to fill up some vacant corner in a deficient column, in your paper, with the brief extracts opposite, being his own language."

"For in all things whatever, the mind is the most valuable and the most important; and in this scale the whole of Agriculture is in a natural and just order; the beast is an informing principle to the plough and cart, the laborer is as reason to the beast, and the farmer is as a thinking and presiding principle to the laborer."—Burke.

FLORICULTURE—For October, 1856.

Prepared for the American Farmer, by John Feast, Florist.

With this month closes all operations for tender plants, out of doors. They are generally, or ought to be put away in their winter quarters, before its expiration; but this depends chiefly on the weather. If a large collection is kept, the tender ones ought to be housed before any cold weather sets in, least they be injured, which often destroys the bloom. Those plants requiring a higher temperature should not be neglected if cold nights should set in. But if fires are requisite, a little should be made to keep them in a proper state for flowering. Give plenty of air during fine days, and close up the house in time, which will avoid any fires any further than keeping out the damp, as plants when first housed will cast their foliage and create more dampness than when in some time; but much care is saved by removing all dead foliage, &c. as it falls off; also see that the plants are entirely free from insects, and fumigate occasionally with tobacco smoke, and then there is no doubt of keeping plants in good order.

Camellias will have made fine buds by this time, and should be syringed frequently of a fine morning. If an early bloom is wanted, a little more heat should be kept up, and a want of this in the fall, is one reason a poor bloom is often seen; by experience, a little higher temperature would be better for this class of plants until they come fairly into bloom; many buds would be saved that generally drop off for want of nourishment, and perhaps, too much dampness, which should be avoided at all times. Seed may be planted in pots or boxes if ripe now.

Cinerarias, Calceolarias, and such, for Spring flowering should be forwarded in larger pots, and kept near the glass for fear of damping off, as often occurs for want of proper attention, by being in a wrong position and too much shade.

Geraniums, cut down, keep as dry as barely to keep them alive, until they begin to grow, to draw up the moisture, and when the foliage begins to grow, a little more water may be given; pot off all cuttings that are rooted, and treat as directed for young plants.

Dahlias will be in their greatest beauty now; attend to keep them neatly tied up to rods, and have each kind labelled before taking them up, which will be after the first severe frost. Green-house bulbs that flower through the winter bring forward, re-pot, and place all that are dormant on some dry shelf till Spring.

Cold frames, if wanted, get ready, for Violets, Daiseys, and all such plants that will do in a like situation; take up all layers and keep them in a similar place, and shade for a time till recovered. Take up all plants that have been planted out in the borders for the Summer, belonging to the green-house, and arrange them in the most suitable position for the winter, and give sufficient drainage and pot room. The latter part of this month plant out Hyacinths, Tulips, and all hardy bulbs that are out of the ground; prepare the borders of good rich fresh loam, mixed with manure and leaf mould of sufficient depth, one foot or more, and when planted a slight covering of long manure or leaf mould.

Transplant trees and shrubs, roses, and all hardy plants, from now until the cold weather sets in, and the making of borders, walks, and box edging, so long as the season is fine, and keeps open.

☞Gutta percha is a non-conductor of electricity as well as of heat and cold.

A Valuable Variety of Wheat.—Our friend Stabler left with us a few grains of the wheat noticed in the following letter:—

To the Editors of the American Farmer:

Harewood, 9th Month 19th, 1856.

I am unable to comply with your request to furnish the *name* of the sample of fine white wheat recently handed you. Three years since a friend sent me about one table spoonful, as a fine sample of wheat, from the North; it was drilled in by hand, and adjoining a field of white blue stem. When ripe, I carefully selected the best heads, (there being at least two varieties,) and drilled in about a gallon of seed at the rate of two bushels to the acre. This product was again sown, and from it I have just cleaned up 58½ bushels of merchantable wheat on 1½ acres. The yield was over forty bushels to the acre, as a strip on one side adjoining the fence, was winter killed by a snowbank as high as the fence.

I was induced to continue the experiment from the fact that the straw is stronger, shorter, and stands up much better than any other white wheat I have grown.

We had five bushels ground, and find it makes the finest family flour; and I shall sow half my crop with it, as there has so far, been no appearance of rust, smut or fly, to affect its maturing.

Your friend, EDWARD STABLER.

WINTERING COWS.

We find in the *Rural New-Yorker*, an account of some experiences related at a Farmers' Club Meeting, respecting wintering cows, from which we take the following as possessing some interest. One member said:

"If I were to have cows wintered just to my liking, they should be fed on cornstalks, and if profit were consulted, these, by all means, should first be run through a stalk cutter. This, in my estimation, is a saving of at least one-fourth their value. My method of feeding is to give each animal a bushel basket full of stalks; they will not eat them clean, but to save all, I throw what they leave in the mangers to my colts, who soon dispose of them, and without a remainder. Those cows which are in milk, are fed a slop of buckwheat bran night and morning, those not yet come in are given two or three ears of corn at each feeding, until they begin to spring bag, when they are fed once a day, the same as the cows which are milked. In this way cows may be kept in a thriving condition, and, I believe, a greater yield of milk and butter can be obtained, than from any other mode of feeding. In regard to the value of different kinds of food for cows, I heard an old dairyman say that buckwheat was the best for producing milk of any grain. Corn and cob meal (or corn meal alone) fattens a cow too much for their health, if fed before calving. Two quarts of oats per day is a better feed at this time. Corn and cob meal and oat meal, half and half, is good feed for milch cows, and wheat shorts, scalded and salted, will induce a large flow of milk."

The next Cattle Show and Fair of the Rappahannock Agricultural Society will commence in Fredericksburg, on Wednesday the 12th day of November, and continne for three days.

EXPERIENCE IN CORN GROWING.

A Delaware corn planter, who has not failed in twenty years to make a good crop of corn, gives the following as his method of management. He plants always on a sod two or three years old. This is turned down as deeply as three strong horses can turn it, rolled and harrowed well. The ground is laid off for planting *as deeply as possible* without turning up the sod. The corn lying at the bottom of this furrow, is covered with two or three inches of earth. Its first roots strike deeply into the ground, where the rotting sod keeps up a continual moisture. The corn being set deep in the ground, the furrow is filled up by the working, the plant is well sustained against storms, and there is no occasion for "hilling up." He works the surface thoroughly and quickly, and finishes by the time it is as high as his hips.

The mystery of good farming is as yet hid from the many, because they wont use their eyes, and the favored few profit the more by their knowledge. The farmer who makes a fair crop even in seasons of drought, makes an actual profit of the bad weather. If he makes less crop than usual, he only has the less labor in saving it, for he makes a good crop nevertheless, and the shallow farmer failing, he makes up his deficiency by the increased price.

Farmers are proverbial grumblers, so our town friends say. But who does not talk about the weather, in town or country? You can't meet a friend on the street, but he tells you it is a fine day, or a bad day, a fact, which, as Mr. Randolph said, is "very apparent," but of which you were also on the point of informing him. It is not surprising therefore, that farmers should remark upon the weather, and make a little extra grunting when it threatens his year's success. But beyond this natural expression of uneasiness, it is only the bad farmer who really grumbles and complains of bad weather. He is glad to shift from his own shoulders the responsibility of his wrong doings, and when the scorching suns and hot blighting winds come, and he listens in vain for the distant thunder, and looks and longs for the refreshing rains which come not, he is oppressed with a consciousness of that "hard-pan," firm as a pavement under his corn field, and the famishing roots spread out within three or four inches of the parched surface. It is a relief to him to throw the blame upon the wretched weather, and he tries by grumbling to convince himself that he is an injured man. But he who has done his work well and thoroughly, knows that for that reason, his vigorous crop can endure more bad weather—knows that it can wait longer for the "latter rains," and is not troubled by the consciousness of his own neglect.—And while he has less temptation to grumble, he is very likely in learning to do his duty well, to have learned the wisdom of unrepining, cheerful submission to Him, who alone, plant as we may, and work as we may, "gives the increase.'

USE OF GUANO—*Caution.*—The Germantown (Pa.) Telegraph says, that a person in that vicinity lost his life from handling Guano while he had a cut or sore upon one of his hands, the poisonous animal matter penetrating into his system. The *Delaware County* (Pa.) *Republican* says, that Silas Gravel, a resident of Lower Merion, Montgomery county, recently came to his death from the same cause. He was preparing a lot of Guano to sow preparatory to putting in his turnip crop, and had at the time, a number of sores on the back of his hands. Into one of these sores the guano penetrated, and in a day or two after, he experienced a sharp pain in one of his arms, which extended rapidly to the shoulder, and from thence to his body, growing most acute, and causing his whole system to become swollen. Physicians were sent for, who pronounced the case beyond medical skill. In this state he lingered in great agony, for about a week, when death relieved him of his sufferings.

Congress has passed a bill in reference to unoccupied Guano Islands, which is regarded by the agricultural interests of the country with deep solicitude. The bill provides that when any American in a vessel of the same nationality shall discover an island, vacant and unappropriated, containing deposits of guano, he may take possession of it for his own advantage, the eminent domain being reserved to the United States, and provided that the price of guano, when imported into the United States, shall be limited by a certain standard named in the bill. The Navy Department has taken a lively interest in this matter, and has given all the assistance within its power to the attempts from time to time made for securing to the United States some of the numerous unclaimed islands in the Pacific covered with guano. Commodore Mervine in the sailing frigate Independence, set out from San Francisco in December, 1855. Commodore Mervine's instructions were to search for the islands alleged to have been discovered by Capt. Baker of New Bedford, and if they were found, to take possession of them for the United States.—There are six other ships of war in the Pacific whose commanders have instructions to search for guano islands. Commodore Mervine has returned, but his report is not at all satisfactory to the parties interested.

PROTECTION AGAINST INSECTS.—The Imperial Horticultural Society of Paris has just received a communication from M. Tessler, one of its members, stating that the ammoniacal waters of gas have the property of destroying the insects which commit such ravages on the fruit trees. This ammoniacal water is mixed with three-fourths its quantity of common water, and is then sprinkled over the leaves and branches of the trees. A small trench is dug around each tree to receive the water which falls, and this kills the destructive insects which harbor about the roots.

"THE CROPS IN FRANCE.—The merchants of Marseilles, it is said, having ascertained that the wheat harvest will not be sufficient for the home consumption of all France, are beginning to suggest to the government, through their local papers, that a repeal of the corn laws would be indispensable, or at least an extension of the imperial decree, which permits the free importation of corn, and which expires on the first of January next. Although two millions of hectolitres of wheat have been imported within two months, through the port of Marseilles, it would be impossible by the end of the year to make up the great deficiency which exists."

PENNSYLVANIA STATE AGRICULTURAL SOCIETY.—We omitted, in our last, to call attention to the next annual Exhibition of this Society, which takes place on the 30th September, and continues until the 3d of October, inst. We hope as many of our people as can make it convenient, will be with our friends, at Pittsburg, where it is held, on the occasion.—Our old friend, *Gowen*, the President of the Society, and one of the oldest pioneers in the cause of Agriculture, will give them a hearty welcome.

STATE SHOWS THIS MONTH.—New York, at Watertown, October 1, 2 and 3; United States, at Philadelphia, October 7 to 10; Maryland, at Baltimore, 21st to 24th,; North Carolina, at Raliegh, 14th to 17th; Virginia, at Richmond, 28th to Nov. 1; Union Society of Virginia and North Carolina, at Petersburg, Va., 21st to 24th October; New Hampshire, 8th to 10th; Maine, 28th to 31st; Iowa, at Muscatine, 8th to 10th; Kentucky, at Paris, October 1st to 4th; Michigan, at Detroit, October 1st to 3d; Georgia, at Atalanta, 20th to 23d; Illinois, at Alton, 1st to 3d; Connecticut, at New Haven, 7th to 10th; Tennessee, at Nashville, 13th to 19th; Wisconsin, at Milwaukie, 8th to 10th.

CISTERNS, AND HOW TO MAKE THEM.

We have several inquiries relative to the art of making cisterns. Where bricks are to be had they are easily constructed with the aid of water-lime. The mortar should be composed of one part water-lime to two parts of good sharp sand, and made in such quantities only as can be immediately used. Good cisterns of moderate size can be made easily from inch and a half plank, well jointed together, hooped like a barrel, overlaying the bottom with coatings of the cement until it is water-tight. Where the soil is loose, and the plank would be liable to leakage, a coating of the mortar if rightly put on, will render the cistern thoroughly tight. In building cisterns with filters, it is necessary to have a water-tight division in the cistern, on one side of which the supply of water is received. At the bottom of this division, is a thick layer of clean sand through which the water has to pass to get to that division from which the water is drawn. The art of making these filtering cisterns is simple, and they can be easily constructed by any good mechanic.

How to preserve a good supply of water throughout Summer is of great importance to some farmers who have neither springs nor large wells on their farms, and yet economising by means of well-constructed cisterns, the rain which falls previous to the dry season, they need suffer but little. It is easy to calculate how much water a certain number of live stock will use, and hence compute the amount of cistern room that will be necessary on the farm.

It is estimated that a barn thirty by forty feet supplies annually from its roof 864 barrels, or enough for more than two barrels a day yearly. If, however, this water was collected, and kept for the dry season only, 20 or 30 barrels daily might be used.

A cistern 10 feet in diameter, 9 feet deep, will hold 168 barrels. That is a very good size to make barn cisterns. If you want more capacity, make two. A cistern 5 feet diameter will hold 5 2-3 barrels to each foot in depth. And 7 feet diameter, 9¼ barrels per foot; 8 feet, nearly 12 barrels; 9 feet, 13⅔ barrels; 10 feet, 18 2-3 barrels per foot. —*Mich. Farmer.*

SOUTH CAROLINA.—A letter to the "Farmer," dated Beaufort, August 31, says—"We have had a severe and protracted drought here for many weeks past, but were blessed with abundant rains here at last, yesterday and the day before. Our provision crops, especially corn and sweet potatoes, have suffered severely, and the former I am afraid will prove a short crop. The Rice crops on the short rivers have suffered materially, and must be much shortened; but those on the long rivers are quite as good as usual, if not a little better. Our cotton crops are unusually backward, but are promising just now, and may yet prove average ones if not cut off by the caterpillars, which are reported in many places, or by an early frost."

DRAINAGE.—"Of the importance of drainage as a means of meliorating the soil, most persons are not sufficiently aware—none but those who have witnessed the good effects of this process, can properly appreciate its great benefits; for it has been well and truly said, that by draining the soil is kept from being too wet, and also preserved from the effects of drought—that it is warmed by the summer showers, and escapes the chilling influence of excessive moisture, and is kept from being baked by excessive heat—that it is percolated by currents of the all pervading air, laden with treasures of food for the plants, while at the same time the cutting blasts of wind pass harmlessly over, without drying out all the moisture, and producing excessive cold by evaporation."—PRO. J. A. WARDEN.

THE BEST ICE CREAM.—Our best confectioners, in making their creams, use about 8 ounces of loaf sugar to every quart of cream. To flavor 4 quarts of cream with vanilla, requires a bean and a half, boiled in a little milk. If with lemon the outer rinds of three lemons should be grated very fine, or six drops of oil of lemon for every four quarts of cream. Four quarts of good cream will make seven quarts of ice cream, if well beaten; while thin, milky cream will increase but little, and never become perfectly smooth. The ice should be fine, and put in the freezer with alternate layers of salt—say about two quarts of salt to an eight quart freezer—the ice and salt as they work down to be filled up.

NEW ADVERTISEMENTS.—We call attention to the following described new advertisements in this month's Farmer, which will be found principally on the cover, viz :

From Darlington & Co., West Chester, Pa., of their Nursery of Fruit and Ornamental Trees.

H. R. Robey, of Fredericksburg, Va., of the same.

John Husfelt, of Cecilton, Md., of his Peach Trees.

Andre Leroy's French Nursery—F. A. Bruguiere, of New York, Agent.

Alderney and Devon Stock, and Iverson Grass, applications for which at this office.

A. Hahnberger, McVeytown, Pa., of his grape vines.

R. H. Evans, Elkridge, Md., of his sheep and other stock. Also, his large and valuable Farm, which he will sell a bargain, circumstances requiring him to devote his time and means in another section.

H. K. Burgwyn, of Halifax, N. C., who offers a large Farm for sale, at a very low rate.

Seaboard Agricultural Society, of their 2d annual exhibition, in Norfolk, in November.

D. Warfield & Son, Baltimore, of Maryland Seed Wheat.

Thos. Wood, of Steelville, Pa., offering a lime spreader for sale.

C. M. Saxton & Co., of New York, a Catalcgue of Agricultural Books for sale.

F. D. Benteen, of Baltimore, of his splendid Pianos.

Analysis of Soils, by Dr. D. Stewart.

PRESERVING DRIED FRUIT FROM WORMS.—We have a very simple and effectual method of keeping dried fruit, namely: In the Spring, before the worms make their appearance (or even after you can detect a few,) wash your fruit in a liberal quantity of warm water, as if you were preparing them for cooking. Shake the water from them—and dry, either in the house or out as may be convenient. They will dry in a few hours. And this time you will be too early for the insects, and therefore secure the eating of your own delicious fruit.—*Country Gentlemen.*

BALTIMORE MARKET.—SEPT. 27.

[*Flour and Grain.*—As remarked elsewhere, the market for breadstuffs has been agitated during the month, and notwithstanding the reports of the fine harvests in Europe, by late arrivals, large *orders were brought out*, it is said, for French and Continent account, and there is much activity in the market, and the decline manifested on the first receipt, at the first of the week, of the steamer's news, has been fully recovered from at the closing thereof, and verifying what we have said elsewhere, that there must be a large demand for our grain in Europe.]

Flour, Howard street and City Mills $6.75, and holders are firm; Ohio Flour $6.75; Family Flour, Baltimore ground, $8.25a8.50a9; Howard st. Family Flour, $7.25a7.50. Rye Flour $3.25a3.50. Corn Meal, Pa., $3.25; city mills, $3.75. Wheat, Reds, good to prime, $1.40a1.45; white $1.45a1.50 for fair, 1.53a1.57 for good to prime, and $1.60 for choice lots. Corn demand good, white 60a62, and yellow 62 a64c. for ordinary to prime lots Oats, demand brisk, at 35a 38c. Timothy Seed $3.75a4a4.50. Clover do. $9.25 in small lots, for prime, and large parcels, $8.50a8.75. Hay, baled, 19a21; loose, 17a19, Straw, dull, at $14a15 for Rye, and $8 a10 for wheat. Molasses, N. O. 58a60c., Porto Rico, 46a48c; refined syrup, 60a65. Rosin, $1.60 for common, and $4 for No. 1. Spirits Turpentine 43a45c. Tar $2a2.25. Pitch, $1.75a2. Oil, Am. Linseed, $1. Plaster, lump, $3.25a3.60 ground $1.25a1.37. Sugar, N. O. and Porto Rico, $9a10.25, Cuba and foreign Island $8.50a8.75 Wool, unwashed 23a25c. pulled 20a32c., tub washed 32a35, fleece Wool, com. to ¼ blood 29a32c, ¼ to ½ do. 33a36, ½ to ¾, 33a37, ¾ to full 40a45, and extra 45a50c per lb. Whiskey, city 36½, Ohio 38c. Cattle, beef $3a4.35 on the hoof, equal to $6a8.25, nett, and averaging $3.92 gross Hogs, $7a7.50 per 100 lbs.—Sheep, $2a3 per 100 lbs. gross.

Tobacco—The accounts of the crop are not favorable, either in this State, Western, or the South. There have been some frosts, and fears are entertained of damage to the Tobacco crop. There is little or no Kentucky in our market; Ohio is in good demand, and sells as soon as it is inspected and offered, but some holders are holding back in expectation of better prices than those ruling of late. Maryland continues active as usual, and in demand, with an inclination for upward prices for better kinds. Ohio, inferior to good common, $7a7.75; middling, brown to good red, $7.50a8; good and fine red, $8a10, fine red cigar wrappers, $12a15. Maryland inferior short stemed, $4.50a5, com. $5a6; mid. to brown, $6.50a7, and brown leafy, $7.50a9.

Guano—Prices noted elsewhere, where it is stated that the Colombian could not be supplied, this was but for a short period, fresh arrivals having since given a supply, and orders can be now filled.

P. S.—By the telegraph, to-day, we learn that Wheat and Flour had advanced in New York, and was advancing; sales there of Southern white at 165a170, and red at 145a 155. Flour, Southern $6.90a7.50 for mixed to good standard.

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